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NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE

In the United States District Court
for the Northern District of California

ROGER SCHLAFLY, Plaintiff
v.

PUBLIC KEY PARTNERS, and

RSA DATA SECURITY INC., Defendants.

) Case C-94-20512 SW PVT
) Exhibits
)
) Hon. Spencer Williams
) 10 am, Aug. 27, 1997

Exhibits

Exh. GA. Schlafly declaration
Exh. GB. DoJ antitrust guidelines
Exh. GC. Arbitration decree
Exh. GD. RSADSI Int. response
Exh. GE. RSADSI press release
Exh. GF. RSADSI license agreement
Exh. GG. RSADSI letter to Schlafly

(Remaining exhibits confidential, and filed under seal.)

Exh. GH. Stanford patent opinion
Exh. GI. Bidzos declaration
Exh. GJ. License inquiry

Exhibit GA

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In the United States District Court
for the Northern District of California

ROGER SCHLAFLY, Plaintiff

v.

PUBLIC KEY PARTNERS, and

RSA DATA SECURITY INC., Defendants.

) Case C-94-20512 SW PVT
) Schlafly Declaration #6
)
)
) Hon. Spencer Williams
) 10 am, Aug. 27, 1997

Declaration

I, Roger Schlafly, declare:

1. I am the Plaintiff in this case.

2. I have personal knowledge of each and every fact set forth
below and can competently testify thereto.

3. Attached hereto is Exh. GB, a true and correct copy of the
DoJ/FTC Antitrust Guidelines. It is available on the web at
<http://www.usdoj.gov/atr/Guidelines/ipguide.wp5> .

4. Attached hereto is Exh. GC, a true and correct copy of a PKP
arbitration decree.

5. Attached hereto is Exh. GD, a true and correct copy of an
RSADSI interrogatory response.

6. Attached hereto is Exh. GE, a true and correct copy of an
RSADSI press release, which was publicly posted on its web site.

SCHLAFLY DECLARATION 6

1 7. Attached hereto is Exh. GF, a true and correct copy of an
2 RSADSI license agreement which was publicly posted on its web
3 site.
4

5 8. Attached hereto is Exh. GG, a true and correct copy of a letter
6 from RSADSI to Schlafly.
7

8 9. Attached hereto (but filed under seal with the Court) is Exh.
9 GH, a true and correct copy of the Cushman, Darby, & Cushman
10 letter cited in Exh. GD.
11

12 10. Attached hereto (but filed under seal with the Court) is Exh.
13 GI, a true and correct copy of a Bidzos declaration.
14

15 11. Attached hereto (but filed under seal with the Court) is Exh.
16 GJ, a true and correct copy of license inquiry to RSADSI, and its
17 response.
18

19 12. Michael Markowitz and I sold a commercial asymmetric key
20 cryptography product called Crypt Master in the mid 1980s. There
21 were other such products as well from other companies.
22

23 13. I have examined the argument by MIT in the file wrapper for US
24 Patent No. 4,405,829. The argument about a formula not being
25 mathematical formula because it involves an equivalence relation
26 makes no sense, mathematically.
27

28 14. The published Lemcom license has a royalty of 5% on the "Net

1 Sales Price" of software products, with a minimum per unit
2 depending on volume.

3
4 15. Netscape and Microsoft have given away products with
5 components licensed from RSADSI.

6
7 16. According to press reports, Netscape and Cybercash gave RSADSI
8 stock in exchange for royalty-free patent and software licenses.

9
10 17. The PKP patents have effectively dominated public key
11 cryptography in the U.S.

12
13 18. RSADSI dominates the cryptography software market in the U.S.
14 It has advertised that it has "more than 75 million copies of RSA
15 encryption and authentication technologies installed and in use
16 worldwide."

17
18 19. ANSI is considering adopting two types of public key
19 signatures for its banking standards, called DSA and rDSA. DSA is
20 derived from the Stanford technology, and rDSA is derived from the
21 MIT technology. For many applications, the two signature
22 technologies are interchangeable in the sense that either will
23 suffice and the typical customer only need one of them. The
24 related encryption technologies are also interchangeable for many
25 purposes.

1 20. A "CSP" product is a cryptographic software product with a
2 very specific interface defined by Microsoft. CSP stands for
3 Cryptographic Service Provider. RSADSI is quite familiar with CSP
4 products, as it has licensed its software to companies for the
5 purpose of making a CSP. RSADSI lawyer Rob Fram asked Schlafly
6 about his CSP product in a deposition on July 25, 1997. The RSA
7 and potentially patent infringing capabilities of a CSP would be
8 very well known to RSADSI.

9
10 21. PKP and RSADSI have, at various times, promised a "reasonable
11 and nondiscriminatory licensing policy" for their patents, in
12 purported compliance with ANSI regulations and those of other
13 standards organizations.

14
15 22. I declare under penalty of perjury under the laws of the
16 United States that the foregoing is true and correct. Executed on
17 August 4, 1997 in Soquel, California.

18
19 By:  _____

20
21 Roger Schlafly
22
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26
27
28

Exhibit GB



Antitrust Guidelines for the Licensing of Intellectual Property

April 6, 1995

Issued by the

**U.S. Department of Justice
and the
Federal Trade Commission**

* These Guidelines supersede section 3.6 in Part I, "Intellectual Property Licensing Arrangements," and cases 6, 10, 11, and 12 in Part II of the U.S. Department of Justice 1988 Antitrust Enforcement Guidelines for International Operations.

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1. Intellectual property protection and the antitrust laws

1.0 These Guidelines state the antitrust enforcement policy of the U.S. Department of Justice and the Federal Trade Commission (individually, "the Agency," and collectively, "the Agencies") with respect to the licensing of intellectual property protected by patent, copyright, and trade secret law, and of know-how.¹ By stating their general policy, the Agencies hope to assist those who need to predict whether the Agencies will challenge a practice as anticompetitive. However, these Guidelines cannot remove judgment and discretion in antitrust law enforcement. Moreover, the standards set forth in these Guidelines must be applied in unforeseeable circumstances. Each case will be evaluated in light of its own facts, and these Guidelines will be applied reasonably and flexibly.²

In the United States, patents confer rights to exclude others from making, using, or selling in the United States the invention claimed by the patent for a period of seventeen years from the date of issue.³ To gain patent protection, an invention (which may be a product, process, machine, or composition of matter) must be novel, nonobvious, and useful. Copyright protection applies to original works of authorship embodied in a tangible medium of expression.⁴ A copyright protects only the expression, not the underlying ideas.⁵ Unlike a patent, which protects an invention not only from copying but also from independent creation, a copyright does not preclude others from independently creating similar

¹ These Guidelines do not cover the antitrust treatment of trademarks. Although the same general antitrust principles that apply to other forms of intellectual property apply to trademarks as well, these Guidelines deal with technology transfer and innovation-related issues that typically arise with respect to patents, copyrights, trade secrets, and know-how agreements, rather than with product-differentiation issues that typically arise with respect to trademarks.

² As is the case with all guidelines, users should rely on qualified counsel to assist them in evaluating the antitrust risk associated with any contemplated transaction or activity. No set of guidelines can possibly indicate how the Agencies will assess the particular facts of every case. Parties who wish to know the Agencies' specific enforcement intentions with respect to any particular transaction should consider seeking a Department of Justice business review letter pursuant to 28 C.F.R. § 50.6 or a Federal Trade Commission Advisory Opinion pursuant to 16 C.F.R. §§ 1.1-1.4.

³ See 35 U.S.C. § 154 (1988). Section 532(a) of the Uruguay Round Agreements Act, Pub. L. No. 103-465, 108 Stat. 4809, 4983 (1994) would change the length of patent protection to a term beginning on the date at which the patent issues and ending twenty years from the date on which the application for the patent was filed.

⁴ See 17 U.S.C. § 102 (1988 & Supp. V 1993). Copyright protection lasts for the author's life plus 50 years, or 75 years from first publication (or 100 years from creation, whichever expires first) for works made for hire. See 17 U.S.C. § 302 (1988). The principles stated in these Guidelines also apply to protection of mask works fixed in a semiconductor chip product (see 17 U.S.C. § 901 *et seq.* (1988)), which is analogous to copyright protection for works of authorship.

⁵ See 17 U.S.C. § 102(b) (1988).

expression. Trade secret protection applies to information whose economic value depends on its not being generally known.⁶ Trade secret protection is conditioned upon efforts to maintain secrecy and has no fixed term. As with copyright protection, trade secret protection does not preclude independent creation by others.

⁶ Trade secret protection derives from state law. *See generally Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470 (1974).

The intellectual property laws and the antitrust laws share the common purpose of promoting innovation and enhancing consumer welfare.⁷ The intellectual property laws provide incentives for innovation and its dissemination and commercialization by establishing enforceable property rights for the creators of new and useful products, more efficient processes, and original works of expression. In the absence of intellectual property rights, imitators could more rapidly exploit the efforts of innovators and investors without compensation. Rapid imitation would reduce the commercial value of innovation and erode incentives to invest, ultimately to the detriment of consumers. The antitrust laws promote innovation and consumer welfare by prohibiting certain actions that may harm competition with respect to either existing or new ways of serving consumers.

2. General principles

2.0 These Guidelines embody three general principles: (a) for the purpose of antitrust analysis, the Agencies regard intellectual property as being essentially comparable to any other form of property; (b) the Agencies do not presume that intellectual property creates market power in the antitrust context; and (c) the Agencies recognize that intellectual property licensing allows firms to combine complementary factors of production and is generally procompetitive.

⁷ “[T]he aims and objectives of patent and antitrust laws may seem, at first glance, wholly at odds. However, the two bodies of law are actually complementary, as both are aimed at encouraging innovation, industry and competition.” *Atari Games Corp. v. Nintendo of America, Inc.*, 897 F.2d 1572, 1576 (Fed. Cir. 1990).

2.1 Standard antitrust analysis applies to intellectual property

The Agencies apply the same general antitrust principles to conduct involving intellectual property that they apply to conduct involving any other form of tangible or intangible property. That is not to say that intellectual property is in all respects the same as any other form of property. Intellectual property has important characteristics, such as ease of misappropriation, that distinguish it from many other forms of property. These characteristics can be taken into account by standard antitrust analysis, however, and do not require the application of fundamentally different principles.⁸

Although there are clear and important differences in the purpose, extent, and duration of protection provided under the intellectual property regimes of patent, copyright, and trade secret, the governing antitrust principles are the same. Antitrust analysis takes differences among these forms of intellectual property into account in evaluating the specific market circumstances in which transactions occur, just as it does with other particular market circumstances.

Intellectual property law bestows on the owners of intellectual property certain rights to exclude others. These rights help the owners to profit from the use of their property. An intellectual property owner's rights to exclude are similar to the rights enjoyed by owners of other forms of private property. As with other forms of private property, certain types of conduct with respect to intellectual property may have anticompetitive effects against which the antitrust laws can and do protect. Intellectual property is thus neither particularly free from scrutiny under the antitrust laws, nor particularly suspect under them.

The Agencies recognize that the licensing of intellectual property is often international. The principles of antitrust analysis described in these Guidelines apply equally to domestic and international licensing arrangements. However, as described in the 1995 Department of Justice and Federal Trade Commission Antitrust Enforcement Guidelines for International Operations, considerations particular to international operations, such as jurisdiction and comity, may affect enforcement decisions when the arrangement is in an international context.

⁸ As with other forms of property, the power to exclude others from the use of intellectual property may vary substantially, depending on the nature of the property and its status under federal or state law. The greater or lesser legal power of an owner to exclude others is also taken into account by standard antitrust analysis.

2.2 Intellectual property and market power

Market power is the ability profitably to maintain prices above, or output below, competitive levels for a significant period of time.⁹ The Agencies will not presume that a patent, copyright, or trade secret necessarily confers market power upon its owner. Although the intellectual property right confers the power to exclude with respect to the *specific* product, process, or work in question, there will often be sufficient actual or potential close substitutes for such product, process, or work to prevent the exercise of market power.¹⁰ If a patent or other form of intellectual property does confer market power, that market power does not by itself offend the antitrust laws. As with any other tangible or intangible asset that enables its owner to obtain significant supracompetitive profits, market power (or even a monopoly) that is solely “a consequence of a superior product, business acumen, or historic accident” does not violate the antitrust laws.¹¹ Nor does such market power impose on the intellectual property owner an obligation to license the use of that property to others. As in other antitrust contexts, however, market power could be illegally acquired or maintained, or, even if lawfully acquired and maintained, would be relevant to the ability of an intellectual property owner to harm competition through unreasonable conduct in connection with such property.

2.3 Procompetitive benefits of licensing

Intellectual property typically is one component among many in a production process and derives value from its combination with complementary

⁹ Market power can be exercised in other economic dimensions, such as quality, service, and the development of new or improved goods and processes. It is assumed in this definition that all competitive dimensions are held constant except the ones in which market power is being exercised; that a seller is able to charge higher prices for a higher-quality product does not alone indicate market power. The definition in the text is stated in terms of a seller with market power. A buyer could also exercise market power (e.g., by maintaining the price below the competitive level, thereby depressing output).

¹⁰ The Agencies note that the law is unclear on this issue. Compare *Jefferson Parish Hospital District No. 2 v. Hyde*, 466 U.S. 2, 16 (1984) (expressing the view in dictum that if a product is protected by a patent, “it is fair to presume that the inability to buy the product elsewhere gives the seller market power”) with *id.* at 37 n.7 (O'Connor, J., concurring) (“[A] patent holder has no market power in any relevant sense if there are close substitutes for the patented product.”). Compare also *Abbott Laboratories v. Brennan*, 952 F.2d 1346, 1354–55 (Fed. Cir. 1991) (no presumption of market power from intellectual property right), *cert. denied*, 112 S. Ct. 2993 (1992) with *Digidyne Corp. v. Data General Corp.*, 734 F.2d 1336, 1341–42 (9th Cir. 1984) (requisite economic power is presumed from copyright), *cert. denied*, 473 U.S. 908 (1985).

¹¹ *United States v. Grinnell Corp.*, 384 U.S. 563, 571 (1966); see also *United States v. Aluminum Co. of America*, 148 F.2d 416, 430 (2d Cir. 1945) (Sherman Act is not violated by the attainment of market power solely through “superior skill, foresight and industry”).

factors. Complementary factors of production include manufacturing and distribution facilities, workforces, and other items of intellectual property. The owner of intellectual property has to arrange for its combination with other necessary factors to realize its commercial value. Often, the owner finds it most efficient to contract with others for these factors, to sell rights to the intellectual property, or to enter into a joint venture arrangement for its development, rather than supplying these complementary factors itself.

Licensing, cross-licensing, or otherwise transferring intellectual property (hereinafter "licensing") can facilitate integration of the licensed property with complementary factors of production. This integration can lead to more efficient exploitation of the intellectual property, benefiting consumers through the reduction of costs and the introduction of new products. Such arrangements increase the value of intellectual property to consumers and to the developers of the technology. By potentially increasing the expected returns from intellectual property, licensing also can increase the incentive for its creation and thus promote greater investment in research and development.

Sometimes the use of one item of intellectual property requires access to another. An item of intellectual property "blocks" another when the second cannot be practiced without using the first. For example, an improvement on a patented machine can be blocked by the patent on the machine. Licensing may promote the coordinated development of technologies that are in a blocking relationship.

Field-of-use, territorial, and other limitations on intellectual property licenses may serve procompetitive ends by allowing the licensor to exploit its property as efficiently and effectively as possible. These various forms of exclusivity can be used to give a licensee an incentive to invest in the commercialization and distribution of products embodying the licensed intellectual property and to develop additional applications for the licensed property. The restrictions may do so, for example, by protecting the licensee against free-riding on the licensee's investments by other licensees or by the licensor. They may also increase the licensor's incentive to license, for example, by protecting the licensor from competition in the licensor's own technology in a market niche that it prefers to keep to itself. These benefits of licensing restrictions apply to patent, copyright, and trade secret licenses, and to know-how agreements.

Example 1¹²

Situation: ComputerCo develops a new, copyrighted software program for inventory management. The program has wide application in the health field. ComputerCo licenses the program in an arrangement that imposes both field of use and territorial limitations. Some of ComputerCo's licenses permit use only in hospitals; others permit use only in group medical practices. ComputerCo charges different royalties for the different uses. All of ComputerCo's licenses permit use only in specified portions of the United States and in specified foreign countries.¹³ The licenses contain no provisions that would prevent or discourage licensees from developing, using, or selling any other program, or from competing in any other good or service other than in the use of the licensed program. None of the licensees are actual or likely potential competitors of ComputerCo in the sale of inventory management programs.

Discussion: The key competitive issue raised by the licensing arrangement is whether it harms competition among entities that would have been actual or likely potential competitors in the absence of the arrangement. Such harm could occur if, for example, the licenses anticompetitively foreclose access to competing technologies (in this case, most likely competing computer programs), prevent licensees from developing their own competing technologies (again, in this case, most likely computer programs), or facilitate market allocation or price-fixing for any product or service supplied by the licensees. (See section 3.1.) If the license agreements contained such provisions, the Agency evaluating the arrangement would analyze its likely competitive effects as described in parts 3-5 of these Guidelines. In this hypothetical, there are no such provisions and thus the arrangement is merely a subdivision of the licensor's intellectual property among different fields of use and territories. The licensing arrangement does not appear likely to harm competition among entities that would have been actual or likely potential competitors if ComputerCo had chosen not to license the software program. The Agency therefore would be unlikely to object to this arrangement. Based on these facts, the result of the antitrust analysis would be the same whether the technology was protected by patent, copyright, or trade secret. The Agency's conclusion as to likely competitive effects could differ if, for example, the license barred licensees from using any other inventory management program.

¹² The examples in these Guidelines are hypothetical and do not represent judgments about, or analysis of, any actual market circumstances of the named industries.

¹³ These Guidelines do not address the possible application of the antitrust laws of other countries to restraints such as territorial restrictions in international licensing arrangements.

3. Antitrust concerns and modes of analysis

3.1 Nature of the concerns

While intellectual property licensing arrangements are typically welfare-enhancing and procompetitive, antitrust concerns may nonetheless arise. For example, a licensing arrangement could include restraints that adversely affect competition in goods markets by dividing the markets among firms that would have competed using different technologies. *See, e.g., Example 7.* An arrangement that effectively merges the research and development activities of two of only a few entities that could plausibly engage in research and development in the relevant field might harm competition for development of new goods and services. *See section 3.2.3.* An acquisition of intellectual property may lessen competition in a relevant antitrust market. *See section 5.7.* The Agencies will focus on the actual effects of an arrangement, not on its formal terms.

The Agencies will not require the owner of intellectual property to create competition in its own technology. However, antitrust concerns may arise when a licensing arrangement harms competition among entities that would have been actual or likely potential competitors¹⁴ in a relevant market in the absence of the license (entities in a "horizontal relationship"). A restraint in a licensing arrangement may harm such competition, for example, if it facilitates market division or price-fixing. In addition, license restrictions with respect to one market may harm such competition in another market by anticompetitively foreclosing access to, or significantly raising the price of, an important input,¹⁵ or by facilitating coordination to increase price or reduce output. When it appears that such competition may be adversely affected, the Agencies will follow the analysis set forth below. *See generally* sections 3.4 and 4.2.

3.2 Markets affected by licensing arrangements

Licensing arrangements raise concerns under the antitrust laws if they are likely to affect adversely the prices, quantities, qualities, or varieties of goods and services¹⁶ either currently or potentially available. The competitive effects of licensing arrangements often can be adequately assessed within the relevant markets for the goods affected by the arrangements. In such instances, the

¹⁴ A firm will be treated as a likely potential competitor if there is evidence that entry by that firm is reasonably probable in the absence of the licensing arrangement.

¹⁵ As used herein, "input" includes outlets for distribution and sales, as well as factors of production. *See, e.g.,* sections 4.1.1 and 5.3–5.5 for further discussion of conditions under which foreclosing access to, or raising the price of, an input may harm competition in a relevant market.

¹⁶ Hereinafter, the term "goods" also includes services.

Agencies will delineate and analyze only goods markets. In other cases, however, the analysis may require the delineation of markets for technology or markets for research and development (innovation markets).

3.2.1 Goods markets

A number of different goods markets may be relevant to evaluating the effects of a licensing arrangement. A restraint in a licensing arrangement may have competitive effects in markets for final or intermediate goods made using the intellectual property, or it may have effects upstream, in markets for goods that are used as inputs, along with the intellectual property, to the production of other goods. In general, for goods markets affected by a licensing arrangement, the Agencies will approach the delineation of relevant market and the measurement of market share in the intellectual property area as in section 1 of the U.S. Department of Justice and Federal Trade Commission Horizontal Merger Guidelines.¹⁷

3.2.2 Technology markets

Technology markets consist of the intellectual property that is licensed (the "licensed technology") and its close substitutes—that is, the technologies or goods that are close enough substitutes significantly to constrain the exercise of market power with respect to the intellectual property that is licensed.¹⁸ When

¹⁷ U.S. Department of Justice and Federal Trade Commission, Horizontal Merger Guidelines (April 2, 1992) (hereinafter "1992 Horizontal Merger Guidelines"). As stated in section 1.41 of the 1992 Horizontal Merger Guidelines, market shares for goods markets "can be expressed either in dollar terms through measurement of sales, shipments, or production, or in physical terms through measurement of sales, shipments, production, capacity or reserves."

¹⁸ For example, the owner of a process for producing a particular good may be constrained in its conduct with respect to that process not only by other processes for making that good, but also by other

rights to intellectual property are marketed separately from the products in which they are used,¹⁹ the Agencies may rely on technology markets to analyze the competitive effects of a licensing arrangement.

Example 2

Situation: Firms Alpha and Beta independently develop different patented process technologies to manufacture the same off-patent drug for the treatment of a particular disease. Before the firms use their technologies internally or license them to third parties, they announce plans jointly to manufacture the drug, and to assign their manufacturing processes to the new manufacturing venture. Many firms are capable of using and have the incentive to use the licensed technologies to manufacture and distribute the drug; thus, the market for drug manufacturing and distribution is competitive. One of the Agencies is evaluating the likely competitive effects of the planned venture.

Discussion: The Agency would analyze the competitive effects of the proposed joint venture by first defining the relevant markets in which competition may be affected and then evaluating the likely competitive effects of the joint venture in the identified markets. (See Example 4 for a discussion of the Agencies' approach to joint venture analysis.) In this example, the structural effect of the joint venture in the relevant goods market for the manufacture and distribution of the drug is unlikely to be significant, because many firms in addition to the joint venture compete in that market. The joint venture might, however, increase the prices of the drug produced using Alpha's or Beta's technology by reducing competition in the relevant market for technology to manufacture the drug.

The Agency would delineate a technology market in which to evaluate likely competitive effects of the proposed joint venture. The Agency would identify other technologies that can be used to make the drug with levels of effectiveness and cost per dose comparable to that of the technologies owned by Alpha and Beta. In addition, the Agency would consider the extent to which competition from other drugs that are substitutes for the drug

goods that compete with the downstream good and by the processes used to produce those other goods.

¹⁹ Intellectual property is often licensed, sold, or transferred as an integral part of a marketed good. An example is a patented product marketed with an implied license permitting its use. In such circumstances, there is no need for a separate analysis of technology markets to capture relevant competitive effects.

produced using Alpha's or Beta's technology would limit the ability of a hypothetical monopolist that owned both Alpha's and Beta's technology to raise its price.

To identify a technology's close substitutes and thus to delineate the relevant technology market, the Agencies will, if the data permit, identify the smallest group of technologies and goods over which a hypothetical monopolist of those technologies and goods likely would exercise market power—for example, by imposing a small but significant and nontransitory price increase.²⁰ The Agencies recognize that technology often is licensed in ways that are not readily quantifiable in monetary terms.²¹ In such circumstances, the Agencies will delineate the relevant market by identifying other technologies and goods which buyers would substitute at a cost comparable to that of using the licensed technology.

In assessing the competitive significance of current and likely potential participants in a technology market, the Agencies will take into account all relevant evidence. When market share data are available and accurately reflect the competitive significance of market participants, the Agencies will include market share data in this assessment. The Agencies also will seek evidence of buyers' and market participants' assessments of the competitive significance of technology market participants. Such evidence is particularly important when market share data are unavailable, or do not accurately represent the competitive significance of market participants. When market share data or other indicia of market power are not available, and it appears that competing technologies are comparably efficient,²² the Agencies will assign each technology the same market share. For new technologies, the Agencies generally will use the best available information to estimate market acceptance over a two-year period, beginning with commercial introduction.

3.2.3 Research and development: innovation markets

If a licensing arrangement may adversely affect competition to develop new or

²⁰ This is conceptually analogous to the analytical approach to goods markets under the 1992 Horizontal Merger Guidelines. Cf. § 1.11. Of course, market power also can be exercised in other dimensions, such as quality, and these dimensions also may be relevant to the definition and analysis of technology markets.

²¹ For example, technology may be licensed royalty-free in exchange for the right to use other technology, or it may be licensed as part of a package license.

²² The Agencies will regard two technologies as "comparably efficient" if they can be used to produce close substitutes at comparable costs.

improved goods or processes, the Agencies will analyze such an impact either as a separate competitive effect in relevant goods or technology markets, or as a competitive effect in a separate innovation market. A licensing arrangement may have competitive effects on innovation that cannot be adequately addressed through the analysis of goods or technology markets. For example, the arrangement may affect the development of goods that do not yet exist.²³ Alternatively, the arrangement may affect the development of new or improved goods or processes in geographic markets where there is no actual or likely potential competition in the relevant goods.²⁴

An innovation market consists of the research and development directed to particular new or improved goods or processes, and the close substitutes for that research and development. The close substitutes are research and development efforts, technologies, and goods²⁵ that significantly constrain the exercise of market power with respect to the relevant research and development, for example by limiting the ability and incentive of a hypothetical monopolist to retard the pace of research and development. The Agencies will delineate an innovation market only when the capabilities to engage in the relevant research and development can be associated with specialized assets or characteristics of specific firms.

In assessing the competitive significance of current and likely potential participants in an innovation market, the Agencies will take into account all relevant evidence. When market share data are available and accurately reflect the competitive significance of market participants, the Agencies will include market share data in this assessment. The Agencies also will seek evidence of buyers' and market participants' assessments of the competitive significance of innovation market participants. Such evidence is particularly important when market share data are unavailable or do not accurately represent the competitive significance of market participants. The Agencies may base the market shares of participants in an innovation market on their shares of

²³ *E.g.*, *Sensormatic*, FTC Inv. No. 941-0126, 60 Fed. Reg. 5428 (accepted for comment Dec. 28, 1994); *Wright Medical Technology, Inc.*, FTC Inv. No. 951-0015, 60 Fed. Reg. 460 (accepted for comment Dec. 8, 1994); *American Home Products*, FTC Inv. No. 941-0116, 59 Fed. Reg. 60,807 (accepted for comment Nov. 28, 1994); *Roche Holdings Ltd.*, 113 F.T.C. 1086 (1990); *United States v. Automobile Mfrs. Ass'n*, 307 F. Supp. 617 (C.D. Cal. 1969), *appeal dismissed sub nom. City of New York v. United States*, 397 U.S. 248 (1970), *modified sub nom. United States v. Motor Vehicles Mfrs. Ass'n*, 1982-83 Trade Cas. (CCH) ¶ 65,088 (C.D. Cal. 1982).

²⁴ See Complaint, *United States v. General Motors Corp.*, Civ. No. 93-530 (D. Del., filed Nov. 16, 1993).

²⁵ For example, the licensor of research and development may be constrained in its conduct not only by competing research and development efforts but also by other existing goods that would compete with the goods under development.

identifiable assets or characteristics upon which innovation depends, on shares of research and development expenditures, or on shares of a related product. When entities have comparable capabilities and incentives to pursue research and development that is a close substitute for the research and development activities of the parties to a licensing arrangement, the Agencies may assign equal market shares to such entities.

Example 3

Situation: Two companies that specialize in advanced metallurgy agree to cross-license future patents relating to the development of a new component for aircraft jet turbines. Innovation in the development of the component requires the capability to work with very high tensile strength materials for jet turbines. Aspects of the licensing arrangement raise the possibility that competition in research and development of this and related components will be lessened. One of the Agencies is considering whether to define an innovation market in which to evaluate the competitive effects of the arrangement.

Discussion: If the firms that have the capability and incentive to work with very high tensile strength materials for jet turbines can be reasonably identified, the Agency will consider defining a relevant innovation market for development of the new component. If the number of firms with the required capability and incentive to engage in research and development of very high tensile strength materials for aircraft jet turbines is small, the Agency may employ the concept of an innovation market to analyze the likely competitive effects of the arrangement in that market, or as an aid in analyzing competitive effects in technology or goods markets. The Agency would perform its analysis as described in parts 3-5.

If the number of firms with the required capability and incentive is large (either because there are a large number of such firms in the jet turbine industry, or because there are many firms in other industries with the required capability and incentive), then the Agency will conclude that the innovation market is competitive. Under these circumstances, it is unlikely that any single firm or plausible aggregation of firms could acquire a large enough share of the assets necessary for innovation to have an adverse impact on competition.

If the Agency cannot reasonably identify the firms with the required capability and incentive, it will not attempt to define an innovation market.

Example 4

Situation: Three of the largest producers of a plastic used in disposable bottles plan to engage in joint research and development to produce a new type of plastic that is rapidly biodegradable. The joint venture will grant to its partners (but to no one else) licenses to all patent rights and use of know-how. One of the Agencies is evaluating the likely competitive effects of the proposed joint venture.

Discussion: The Agency would analyze the proposed research and

development joint venture using an analysis similar to that applied to other joint ventures.²⁶ The Agency would begin by defining the relevant markets in which to analyze the joint venture's likely competitive effects. In this case, a relevant market is an innovation market—research and development for biodegradable (and other environmentally friendly) containers. The Agency would seek to identify any other entities that would be actual or likely potential competitors with the joint venture in that relevant market. This would include those firms that have the capability and incentive to undertake research and development closely substitutable for the research and development proposed to be undertaken by the joint venture, taking into account such firms' existing technologies and technologies under development, R&D facilities, and other relevant assets and business circumstances. Firms possessing such capabilities and incentives would be included in the research and development market even if they are not competitors in relevant markets for related goods, such as the plastics currently produced by the joint venturers, although competitors in existing goods markets may often also compete in related innovation markets.

Having defined a relevant innovation market, the Agency would assess whether the joint venture is likely to have anticompetitive effects in that market. A starting point in this analysis is the degree of concentration in the relevant market and the market shares of the parties to the joint venture. If, in addition to the parties to the joint venture (taken collectively), there are at least four other independently controlled entities that possess comparable capabilities and incentives to undertake research and development of biodegradable plastics, or other products that would be close substitutes for such new plastics, the joint venture ordinarily would be unlikely to adversely affect competition in the relevant innovation market (*cf.* section 4.3). If there are fewer than four other independently controlled entities with similar capabilities and incentives, the Agency would consider whether the joint venture would give the parties to the joint venture an incentive and ability collectively to reduce investment in, or otherwise to retard the pace or scope of, research and development efforts. If the joint venture creates a significant risk of anticompetitive effects in the innovation market, the Agency would proceed to consider efficiency justifications for the venture, such as the potential for combining complementary R&D assets in such a way as to make successful innovation more likely, or to bring it about sooner, or to achieve cost reductions in research and development.

The Agency would also assess the likelihood that the joint venture would adversely affect competition in other relevant markets, including markets for products produced by the parties to the joint venture. The risk of such adverse competitive effects would be increased to the extent that, for example,

²⁶ See, e.g., U.S. Department of Justice and Federal Trade Commission, Statements of Enforcement Policy and Analytical Principles Relating to Health Care and Antitrust 20–23, 37–40, 72–74 (September 27, 1994). This type of transaction may qualify for treatment under the National Cooperative Research and Production Act of 1993, 15 U.S.C.A §§ 4301–05.

the joint venture facilitates the exchange among the parties of competitively sensitive information relating to goods markets in which the parties currently compete or facilitates the coordination of competitive activities in such markets. The Agency would examine whether the joint venture imposes collateral restraints that might significantly restrict competition among the joint venturers in goods markets, and would examine whether such collateral restraints were reasonably necessary to achieve any efficiencies that are likely to be attained by the venture.

3.3 Horizontal and vertical relationships

As with other property transfers, antitrust analysis of intellectual property licensing arrangements examines whether the relationship among the parties to the arrangement is primarily horizontal or vertical in nature, or whether it has substantial aspects of both. A licensing arrangement has a vertical component when it affects activities that are in a complementary relationship, as is typically the case in a licensing arrangement. For example, the licensor's primary line of business may be in research and development, and the licensees, as manufacturers, may be buying the rights to use technology developed by the licensor. Alternatively, the licensor may be a component manufacturer owning intellectual property rights in a product that the licensee manufactures by combining the component with other inputs, or the licensor may manufacture the product, and the licensees may operate primarily in distribution and marketing.

In addition to this vertical component, the licensor and its licensees may also have a horizontal relationship. For analytical purposes, the Agencies ordinarily will treat a relationship between a licensor and its licensees, or between licensees, as horizontal when they would have been actual or likely potential competitors in a relevant market in the absence of the license.

The existence of a horizontal relationship between a licensor and its licensees does not, in itself, indicate that the arrangement is anticompetitive. Identification of such relationships is merely an aid in determining whether there may be anticompetitive effects arising from a licensing arrangement. Such a relationship need not give rise to an anticompetitive effect, nor does a purely vertical relationship assure that there are no anticompetitive effects.

The following examples illustrate different competitive relationships among a licensor and its licensees.

Example 5

Situation: AgCo, a manufacturer of farm equipment, develops a new, patented

emission control technology for its tractor engines and licenses it to FarmCo, another farm equipment manufacturer. AgCo's emission control technology is far superior to the technology currently owned and used by FarmCo, so much so that FarmCo's technology does not significantly constrain the prices that AgCo could charge for its technology. AgCo's emission control patent has a broad scope. It is likely that any improved emissions control technology that FarmCo could develop in the foreseeable future would infringe AgCo's patent.

Discussion: Because FarmCo's emission control technology does not significantly constrain AgCo's competitive conduct with respect to its emission control technology, AgCo's and FarmCo's emission control technologies are not close substitutes for each other. FarmCo is a consumer of AgCo's technology and is not an actual competitor of AgCo in the relevant market for superior emission control technology of the kind licensed by AgCo. Furthermore, FarmCo is not a likely potential competitor of AgCo in the relevant market because, even if FarmCo could develop an improved emission control technology, it is likely that it would infringe AgCo's patent. This means that the relationship between AgCo and FarmCo with regard to the supply and use of emissions control technology is vertical. Assuming that AgCo and FarmCo are actual or likely potential competitors in sales of farm equipment products, their relationship is horizontal in the relevant markets for farm equipment.

Example 6

Situation: FarmCo develops a new valve technology for its engines and enters into a cross-licensing arrangement with AgCo, whereby AgCo licenses its emission control technology to FarmCo and FarmCo licenses its valve technology to AgCo. AgCo already owns an alternative valve technology that can be used to achieve engine performance similar to that using FarmCo's valve technology and at a comparable cost to consumers. Before adopting FarmCo's technology, AgCo was using its own valve technology in its production of engines and was licensing (and continues to license) that technology for use by others. As in Example 5, FarmCo does not own or control an emission control technology that is a close substitute for the technology licensed from AgCo. Furthermore, as in Example 5, FarmCo is not likely to develop an improved emission control technology that would be a close substitute for AgCo's technology, because of AgCo's blocking patent.

Discussion: FarmCo is a consumer and not a competitor of AgCo's emission control technology. As in Example 5, their relationship is vertical with regard to this technology. The relationship between AgCo and FarmCo in the relevant market that includes engine valve technology is vertical in part and horizontal in part. It is vertical in part because AgCo and FarmCo stand in a complementary relationship, in which AgCo is a consumer of a technology supplied by FarmCo. However, the relationship between AgCo and FarmCo in the relevant market that includes engine valve technology is also horizontal in part, because FarmCo and AgCo are actual competitors in the licensing of

valve technology that can be used to achieve similar engine performance at a comparable cost. Whether the firms license their valve technologies to others is not important for the conclusion that the firms have a horizontal relationship in this relevant market. Even if AgCo's use of its valve technology were solely captive to its own production, the fact that the two valve technologies are substitutable at comparable cost means that the two firms have a horizontal relationship.

As in Example 5, the relationship between AgCo and FarmCo is horizontal in the relevant markets for farm equipment.

3.4 Framework for evaluating licensing restraints

In the vast majority of cases, restraints in intellectual property licensing arrangements are evaluated under the rule of reason. The Agencies' general approach in analyzing a licensing restraint under the rule of reason is to inquire whether the restraint is likely to have anticompetitive effects and, if so, whether the restraint is reasonably necessary to achieve procompetitive benefits that outweigh those anticompetitive effects. See *Federal Trade Commission v. Indiana Federation of Dentists*, 476 U.S. 447 (1986); *NCAA v. Board of Regents of the University of Oklahoma*, 468 U.S. 85 (1984); *Broadcast Music, Inc. v. Columbia Broadcasting System, Inc.*, 441 U.S. 1 (1979); 7 Phillip E. Areeda, *Antitrust Law* § 1502 (1986). See also part 4.

In some cases, however, the courts conclude that a restraint's "nature and necessary effect are so plainly anticompetitive" that it should be treated as unlawful per se, without an elaborate inquiry into the restraint's likely competitive effect. *Federal Trade Commission v. Superior Court Trial Lawyers Association*, 493 U.S. 411, 433 (1990); *National Society of Professional Engineers v. United States*, 435 U.S. 679, 692 (1978). Among the restraints that have been held per se unlawful are naked price-fixing, output restraints, and market division among horizontal competitors, as well as certain group boycotts and resale price maintenance.

To determine whether a particular restraint in a licensing arrangement is given per se or rule of reason treatment, the Agencies will assess whether the restraint in question can be expected to contribute to an efficiency-enhancing integration of economic activity. See *Broadcast Music*, 441 U.S. at 16-24. In general, licensing arrangements promote such integration because they facilitate the combination of the licensor's intellectual property with complementary factors of production owned by the licensee. A restraint in a licensing arrangement may further such integration by, for example, aligning the incentives of the licensor and the licensees to promote the development and marketing of the licensed technology, or by substantially reducing transactions costs. If there is no efficiency-enhancing integration of economic activity and if the type of restraint is one that has been accorded per se treatment, the Agencies will challenge the restraint under the per se rule. Otherwise, the

Agencies will apply a rule of reason analysis.

Application of the rule of reason generally requires a comprehensive inquiry into market conditions. (See sections 4.1-4.3.) However, that inquiry may be truncated in certain circumstances. If the Agencies conclude that a restraint has no likely anticompetitive effects, they will treat it as reasonable, without an elaborate analysis of market power or the justifications for the restraint. Similarly, if a restraint facially appears to be of a kind that would always or almost always tend to reduce output or increase prices,²⁷ and the restraint is not reasonably related to efficiencies, the Agencies will likely challenge the restraint without an elaborate analysis of particular industry circumstances.²⁸ See *Indiana Federation of Dentists*, 476 U.S. at 459-60; *NCAA*, 468 U.S. at 109.

Example 7

Situation: Gamma, which manufactures Product X using its patented process, offers a license for its process technology to every other manufacturer of Product X, each of which competes world-wide with Gamma in the manufacture and sale of X. The process technology does not represent an economic improvement over the available existing technologies. Indeed, although most manufacturers accept licenses from Gamma, none of the licensees actually uses the licensed technology. The licenses provide that each manufacturer has an exclusive right to sell Product X manufactured using the licensed technology in a designated geographic area and that no manufacturer may sell Product X, however manufactured, outside the designated territory.

Discussion: The manufacturers of Product X are in a horizontal relationship in the goods market for Product X. Any manufacturers of Product X that control technologies that are substitutable at comparable cost for Gamma's process are also horizontal competitors of Gamma in the relevant technology market. The licensees of Gamma's process technology are technically in a vertical relationship, although that is not significant in this example because they do not actually use Gamma's technology.

The licensing arrangement restricts competition in the relevant goods

²⁷ Details about the Federal Trade Commission's approach are set forth in *Massachusetts Board of Registration in Optometry*, 110 F.T.C. 549, 604 (1988). In applying its truncated rule of reason inquiry, the FTC uses the analytical category of "inherently suspect" restraints to denote facially anticompetitive restraints that would always or almost always tend to decrease output or increase prices, but that may be relatively unfamiliar or may not fit neatly into traditional per se categories.

²⁸ Under the FTC's *Mass. Board* approach, asserted efficiency justifications for inherently suspect restraints are examined to determine whether they are plausible and, if so, whether they are valid in the context of the market at issue. *Mass. Board*, 110 F.T.C. at 604.

market among manufacturers of Product X by requiring each manufacturer to limit its sales to an exclusive territory. Thus, competition among entities that would be actual competitors in the absence of the licensing arrangement is restricted. Based on the facts set forth above, the licensing arrangement does not involve a useful transfer of technology, and thus it is unlikely that the restraint on sales outside the designated territories contributes to an efficiency-enhancing integration of economic activity. Consequently, the evaluating Agency would be likely to challenge the arrangement under the *per se* rule as a horizontal territorial market allocation scheme and to view the intellectual property aspects of the arrangement as a sham intended to cloak its true nature.

If the licensing arrangement could be expected to contribute to an efficiency-enhancing integration of economic activity, as might be the case if the licensed technology were an advance over existing processes and used by the licensees, the Agency would analyze the arrangement under the rule of reason applying the analytical framework described in this section.

In this example, the competitive implications do not generally depend on whether the licensed technology is protected by patent, is a trade secret or other know-how, or is a computer program protected by copyright; nor do the competitive implications generally depend on whether the allocation of markets is territorial, as in this example, or functional, based on fields of use.

4. General principles concerning the Agencies' evaluation of licensing arrangements under the rule of reason

4.1 Analysis of anticompetitive effects

The existence of anticompetitive effects resulting from a restraint in a licensing arrangement will be evaluated on the basis of the analysis described in this section.

4.1.1 Market structure, coordination, and foreclosure

When a licensing arrangement affects parties in a horizontal relationship, a restraint in that arrangement may increase the risk of coordinated pricing, output restrictions, or the acquisition or maintenance of market power. Harm to competition also may occur if the arrangement poses a significant risk of retarding or restricting the development of new or improved goods or processes. The potential for competitive harm depends in part on the degree of concentration in, the difficulty of entry into, and the responsiveness of supply and demand to changes in price in the relevant markets. Cf. 1992 Horizontal Merger Guidelines §§ 1.5, 3.

When the licensor and licensees are in a vertical relationship, the Agencies will analyze whether the licensing arrangement may harm competition among entities in a horizontal relationship at either the level of the licensor or the licensees, or possibly in another relevant market. Harm to competition from a restraint may occur if it anticompetitively forecloses access to, or increases competitors' costs of obtaining, important inputs, or facilitates coordination to raise price or restrict output. The risk of anticompetitively foreclosing access or increasing competitors' costs is related to the proportion of the markets affected by the licensing restraint; other characteristics of the relevant markets, such as concentration, difficulty of entry, and the responsiveness of supply and demand to changes in price in the relevant markets; and the duration of the restraint. A licensing arrangement does not foreclose competition merely because some or all of the potential licensees in an industry choose to use the licensed technology to the exclusion of other technologies. Exclusive use may be an efficient consequence of the licensed technology having the lowest cost or highest value.

Harm to competition from a restraint in a vertical licensing arrangement also may occur if a licensing restraint facilitates coordination among entities in a horizontal relationship to raise prices or reduce output in a relevant market. For example, if owners of competing technologies impose similar restraints on their licensees, the licensors may find it easier to coordinate their pricing. Similarly, licensees that are competitors may find it easier to coordinate their pricing if they are subject to common restraints in licenses with a common licensor or competing licensors. The risk of anticompetitive coordination is increased when the relevant markets are concentrated and difficult to enter. The use of similar restraints may be common and procompetitive in an industry, however, because they contribute to efficient exploitation of the licensed property.

4.1.2 Licensing arrangements involving exclusivity

A licensing arrangement may involve exclusivity in two distinct respects. First, the licensor may grant one or more *exclusive licenses*, which restrict the right of the licensor to license others and possibly also to use the technology itself. Generally, an exclusive license may raise antitrust concerns only if the licensees themselves, or the licensor and its licensees, are in a horizontal relationship. Examples of arrangements involving exclusive licensing that may give rise to antitrust concerns include cross-licensing by parties collectively possessing market power (see section 5.5), grantbacks (see section 5.6), and acquisitions of intellectual property rights (see section 5.7).

A non-exclusive license of intellectual property that does not contain any restraints on the competitive conduct of the licensor or the licensee generally does not present antitrust concerns even if the parties to the license are in a

horizontal relationship, because the non-exclusive license normally does not diminish competition that would occur in its absence.

A second form of exclusivity, *exclusive dealing*, arises when a license prevents or restrains the licensee from licensing, selling, distributing, or using competing technologies. See section 5.4. Exclusivity may be achieved by an explicit exclusive dealing term in the license or by other provisions such as compensation terms or other economic incentives. Such restraints may anticompetitively foreclose access to, or increase competitors' costs of obtaining, important inputs, or facilitate coordination to raise price or reduce output, but they also may have procompetitive effects. For example, a licensing arrangement that prevents the licensee from dealing in other technologies may encourage the licensee to develop and market the licensed technology or specialized applications of that technology. See, e.g., Example 8. The Agencies will take into account such procompetitive effects in evaluating the reasonableness of the arrangement. See section 4.2.

The antitrust principles that apply to a licensor's grant of various forms of exclusivity to and among its licensees are similar to those that apply to comparable vertical restraints outside the licensing context, such as exclusive territories and exclusive dealing. However, the fact that intellectual property may in some cases be misappropriated more easily than other forms of property may justify the use of some restrictions that might be anticompetitive in other contexts.

As noted earlier, the Agencies will focus on the actual practice and its effects, not on the formal terms of the arrangement. A license denominated as non-exclusive (either in the sense of exclusive licensing or in the sense of exclusive dealing) may nonetheless give rise to the same concerns posed by formal exclusivity. A non-exclusive license may have the effect of exclusive licensing if it is structured so that the licensor is unlikely to license others or to practice the technology itself. A license that does not explicitly require exclusive dealing may have the effect of exclusive dealing if it is structured to increase significantly a licensee's cost when it uses competing technologies. However, a licensing arrangement will not automatically raise these concerns merely because a party chooses to deal with a single licensee or licensor, or confines his activity to a single field of use or location, or because only a single licensee has chosen to take a license.

Example 8

Situation: NewCo, the inventor and manufacturer of a new flat panel display technology, lacking the capability to bring a flat panel display product to market, grants BigCo an exclusive license to sell a product embodying

NewCo's technology. BigCo does not currently sell, and is not developing (or likely to develop), a product that would compete with the product embodying the new technology and does not control rights to another display technology.

Several firms offer competing displays, BigCo accounts for only a small proportion of the outlets for distribution of display products, and entry into the manufacture and distribution of display products is relatively easy. Demand for the new technology is uncertain and successful market penetration will require considerable promotional effort. The license contains an exclusive dealing restriction preventing BigCo from selling products that compete with the product embodying the licensed technology.

Discussion: This example illustrates both types of exclusivity in a licensing arrangement. The license is exclusive in that it restricts the right of the licensor to grant other licenses. In addition, the license has an exclusive dealing component in that it restricts the licensee from selling competing products.

The inventor of the display technology and its licensee are in a vertical relationship and are not actual or likely potential competitors in the manufacture or sale of display products or in the sale or development of technology. Hence, the grant of an exclusive license does not affect competition between the licensor and the licensee. The exclusive license may promote competition in the manufacturing and sale of display products by encouraging BigCo to develop and promote the new product in the face of uncertain demand by rewarding BigCo for its efforts if they lead to large sales.

Although the license bars the licensee from selling competing products, this exclusive dealing aspect is unlikely in this example to harm competition by anticompetitively foreclosing access, raising competitors' costs of inputs, or facilitating anticompetitive pricing because the relevant product market is unconcentrated, the exclusive dealing restraint affects only a small proportion of the outlets for distribution of display products, and entry is easy. On these facts, the evaluating Agency would be unlikely to challenge the arrangement.

4.2 Efficiencies and justifications

If the Agencies conclude, upon an evaluation of the market factors described in section 4.1, that a restraint in a licensing arrangement is unlikely to have an anticompetitive effect, they will not challenge the restraint. If the Agencies conclude that the restraint has, or is likely to have, an anticompetitive effect, they will consider whether the restraint is reasonably necessary to achieve procompetitive efficiencies. If the restraint is reasonably necessary, the Agencies will balance the procompetitive efficiencies and the anticompetitive effects to determine the probable net effect on competition in each relevant market.

The Agencies' comparison of anticompetitive harms and procompetitive

efficiencies is necessarily a qualitative one. The risk of anticompetitive effects in a particular case may be insignificant compared to the expected efficiencies, or vice versa. As the expected anticompetitive effects in a particular licensing arrangement increase, the Agencies will require evidence establishing a greater level of expected efficiencies.

The existence of practical and significantly less restrictive alternatives is relevant to a determination of whether a restraint is reasonably necessary. If it is clear that the parties could have achieved similar efficiencies by means that are significantly less restrictive, then the Agencies will not give weight to the parties' efficiency claim. In making this assessment, however, the Agencies will not engage in a search for a theoretically least restrictive alternative that is not realistic in the practical prospective business situation faced by the parties.

When a restraint has, or is likely to have, an anticompetitive effect, the duration of that restraint can be an important factor in determining whether it is reasonably necessary to achieve the putative procompetitive efficiency. The effective duration of a restraint may depend on a number of factors, including the option of the affected party to terminate the arrangement unilaterally and the presence of contract terms (e.g., unpaid balances on minimum purchase commitments) that encourage the licensee to renew a license arrangement. Consistent with their approach to less restrictive alternative analysis generally, the Agencies will not attempt to draw fine distinctions regarding duration; rather, their focus will be on situations in which the duration clearly exceeds the period needed to achieve the procompetitive efficiency.

The evaluation of procompetitive efficiencies, of the reasonable necessity of a restraint to achieve them, and of the duration of the restraint, may depend on the market context. A restraint that may be justified by the needs of a new entrant, for example, may not have a procompetitive efficiency justification in different market circumstances. Cf. *United States v. Jerrold Electronics Corp.*, 187 F. Supp. 545 (E.D. Pa. 1960), *aff'd per curiam*, 365 U.S. 567 (1961).

4.3 Antitrust "safety zone"

Because licensing arrangements often promote innovation and enhance competition, the Agencies believe that an antitrust "safety zone" is useful in order to provide some degree of certainty and thus to encourage such activity.²⁹ Absent extraordinary circumstances, the Agencies will not challenge a restraint in an intellectual property licensing arrangement if (1) the restraint is not facially anticompetitive³⁰ and (2) the licensor and its licensees collectively

²⁹ The antitrust "safety zone" does not apply to restraints that are not in a licensing arrangement, or to restraints that are in a licensing arrangement but are unrelated to the use of the licensed intellectual property.

³⁰ "Facially anticompetitive" refers to restraints that normally warrant per se

account for no more than twenty percent of each relevant market significantly affected by the restraint. This "safety zone" does not apply to those transfers of intellectual property rights to which a merger analysis is applied. See section 5.7.

Whether a restraint falls within the safety zone will be determined by reference only to goods markets unless the analysis of goods markets alone would inadequately address the effects of the licensing arrangement on competition among technologies or in research and development.

If an examination of the effects on competition among technologies or in research development is required, and if market share data are unavailable or do not accurately represent competitive significance, the following safety zone criteria will apply. Absent extraordinary circumstances, the Agencies will not challenge a restraint in an intellectual property licensing arrangement that may affect competition in a technology market if (1) the restraint is not facially anticompetitive and (2) there are four or more independently controlled technologies in addition to the technologies controlled by the parties to the licensing arrangement that may be substitutable for the licensed technology at a comparable cost to the user. Absent extraordinary circumstances, the Agencies will not challenge a restraint in an intellectual property licensing arrangement that may affect competition in an innovation market if (1) the restraint is not facially anticompetitive and (2) four or more independently controlled entities in addition to the parties to the licensing arrangement possess the required specialized assets or characteristics and the incentive to engage in research and development that is a close substitute of the research and development activities of the parties to the licensing agreement.³¹

The Agencies emphasize that licensing arrangements are not anticompetitive merely because they do not fall within the scope of the safety zone. Indeed, it is likely that the great majority of licenses falling outside the safety zone are lawful and procompetitive. The safety zone is designed to provide owners of intellectual property with a degree of certainty in those situations in which anticompetitive effects are so unlikely that the arrangements may be presumed not to be anticompetitive without an inquiry into particular industry circumstances. It is not intended to suggest that parties should conform to the safety zone or to discourage parties falling outside the safety zone from adopting restrictions in their license arrangements that are reasonably necessary to achieve an efficiency-enhancing integration of economic activity. The Agencies will analyze arrangements falling outside the safety zone based on the

treatment, as well as other restraints of a kind that would always or almost always tend to reduce output or increase prices. See section 3.4.

³¹ This is consistent with congressional intent in enacting the National Cooperative Research Act. See H.R. Conf. Rpt. No. 1044, 98th Cong., 2d Sess., 10, *reprinted in* 1984 U.S.C.C.A.N. 3105, 3134-35.

considerations outlined in parts 3-5.

The status of a licensing arrangement with respect to the safety zone may change over time. A determination by the Agencies that a restraint in a licensing arrangement qualifies for inclusion in the safety zone is based on the factual circumstances prevailing at the time of the conduct at issue.³²

5. Application of general principles

5.0 This section illustrates the application of the general principles discussed above to particular licensing restraints and to arrangements that involve the cross-licensing, pooling, or acquisition of intellectual property. The restraints and arrangements identified are typical of those that are likely to receive antitrust scrutiny; however, they are not intended as an exhaustive list of practices that could raise competitive concerns.

5.1 Horizontal restraints

The existence of a restraint in a licensing arrangement that affects parties in a horizontal relationship (a "horizontal restraint") does not necessarily cause the arrangement to be anticompetitive. As in the case of joint ventures among horizontal competitors, licensing arrangements among such competitors may promote rather than hinder competition if they result in integrative efficiencies. Such efficiencies may arise, for example, from the realization of economies of scale and the integration of complementary research and development, production, and marketing capabilities.

Following the general principles outlined in section 3.4, horizontal restraints often will be evaluated under the rule of reason. In some circumstances, however, that analysis may be truncated; additionally, some restraints may merit per se treatment, including price fixing, allocation of markets or customers, agreements to reduce output, and certain group boycotts.

³² The conduct at issue may be the transaction giving rise to the restraint or the subsequent implementation of the restraint.

Example 9

Situation: Two of the leading manufacturers of a consumer electronic product hold patents that cover alternative circuit designs for the product. The manufacturers assign their patents to a separate corporation wholly owned by the two firms. That corporation licenses the right to use the circuit designs to other consumer product manufacturers and establishes the license royalties. None of the patents is blocking; that is, each of the patents can be used without infringing a patent owned by the other firm. The different circuit designs are substitutable in that each permits the manufacture at comparable cost to consumers of products that consumers consider to be interchangeable. One of the Agencies is analyzing the licensing arrangement.

Discussion: In this example, the manufacturers are horizontal competitors in the goods market for the consumer product and in the related technology markets. The competitive issue with regard to a joint assignment of patent rights is whether the assignment has an adverse impact on competition in technology and goods markets that is not outweighed by procompetitive efficiencies, such as benefits in the use or dissemination of the technology. Each of the patent owners has a right to exclude others from using its patent. That right does not extend, however, to the agreement to assign rights jointly. To the extent that the patent rights cover technologies that are close substitutes, the joint determination of royalties likely would result in higher royalties and higher goods prices than would result if the owners licensed or used their technologies independently. In the absence of evidence establishing efficiency-enhancing integration from the joint assignment of patent rights, the Agency may conclude that the joint marketing of competing patent rights constitutes horizontal price fixing and could be challenged as a per se unlawful horizontal restraint of trade. If the joint marketing arrangement results in an efficiency-enhancing integration, the Agency would evaluate the arrangement under the rule of reason. However, the Agency may conclude that the anticompetitive effects are sufficiently apparent, and the claimed integrative efficiencies are sufficiently weak or not reasonably related to the restraints, to warrant challenge of the arrangement without an elaborate analysis of particular industry circumstances (see section 3.4).

5.2 Resale price maintenance

Resale price maintenance is illegal when "commodities have passed into the channels of trade and are owned by dealers." *Dr. Miles Medical Co. v. John D. Park & Sons Co.*, 220 U.S. 373, 408 (1911). It has been held per se illegal for a licensor of an intellectual property right in a product to fix a licensee's resale

price of that product. *United States v. Univis Lens Co.*, 316 U.S. 241 (1942); *Ethyl Gasoline Corp. v. United States*, 309 U.S. 436 (1940).³³ Consistent with the principles set forth in section 3.4, the Agencies will enforce the per se rule against resale price maintenance in the intellectual property context.

³³ But cf. *United States v. General Electric Co.*, 272 U.S. 476 (1926) (holding that an owner of a product patent may condition a license to manufacture the product on the fixing of the first sale price of the patented product). Subsequent lower court decisions have distinguished the *GE* decision in various contexts. See, e.g., *Royal Indus. v. St. Regis Paper Co.*, 420 F.2d 449, 452 (9th Cir. 1969) (observing that *GE* involved a restriction by a patentee who also manufactured the patented product and leaving open the question whether a nonmanufacturing patentee may fix the price of the patented product); *Newburgh Moire Co. v. Superior Moire Co.*, 237 F.2d 283, 293-94 (3rd Cir. 1956) (grant of multiple licenses each containing price restrictions does not come within the *GE* doctrine); *Cummer-Graham Co. v. Straight Side Basket Corp.*, 142 F.2d 646, 647 (5th Cir.) (owner of an intellectual property right in a process to manufacture an unpatented product may not fix the sale price of that product), cert. denied, 323 U.S. 726 (1944); *Barber-Colman Co. v. National Tool Co.*, 136 F.2d 339, 343-44 (6th Cir. 1943) (same).

5.3 Tying arrangements

A "tying" or "tie-in" or "tied sale" arrangement has been defined as "an agreement by a party to sell one product . . . on the condition that the buyer also purchases a different (or tied) product, or at least agrees that he will not purchase that [tied] product from any other supplier." *Eastman Kodak Co. v. Image Technical Services, Inc.*, 112 S. Ct. 2072, 2079 (1992). Conditioning the ability of a licensee to license one or more items of intellectual property on the licensee's purchase of another item of intellectual property or a good or a service has been held in some cases to constitute illegal tying.³⁴ Although tying arrangements may result in anticompetitive effects, such arrangements can also result in significant efficiencies and procompetitive benefits. In the exercise of their prosecutorial discretion, the Agencies will consider both the anticompetitive effects and the efficiencies attributable to a tie-in. The Agencies would be likely to challenge a tying arrangement if: (1) the seller has market power in the tying product,³⁵ (2) the arrangement has an adverse effect on competition in the relevant market for the tied product, and (3) efficiency justifications for the arrangement do not outweigh the anticompetitive effects.³⁶ The Agencies will not presume that a patent, copyright, or trade secret necessarily confers market power upon its owner.

Package licensing—the licensing of multiple items of intellectual property in a single license or in a group of related licenses—may be a form of tying arrangement if the licensing of one product is conditioned upon the acceptance of a license of another, separate product. Package licensing can be efficiency enhancing under some circumstances. When multiple licenses are needed to use any single item of intellectual property, for example, a package license may promote such efficiencies. If a package license constitutes a tying arrangement, the Agencies will evaluate its competitive effects under the same principles they apply to other tying arrangements.

5.4 Exclusive dealing

In the intellectual property context, exclusive dealing occurs when a license prevents the licensee from licensing, selling, distributing, or using competing

³⁴ See, e.g., *United States v. Paramount Pictures, Inc.*, 334 U.S. 131, 156–58 (1948) (copyrights); *International Salt Co. v. United States*, 332 U.S. 392 (1947) (patent and related product).

³⁵ Cf. 35 U.S.C. § 271(d) (1988 & Supp. V 1993) (requirement of market power in patent misuse cases involving tying).

³⁶ As is true throughout these Guidelines, the factors listed are those that guide the Agencies' internal analysis in exercising their prosecutorial discretion. They are not intended to circumscribe how the Agencies will conduct the litigation of cases that they decide to bring.

technologies. Exclusive dealing arrangements are evaluated under the rule of reason. See *Tampa Electric Co. v. Nashville Coal Co.*, 365 U.S. 320 (1961) (evaluating legality of exclusive dealing under section 1 of the Sherman Act and section 3 of the Clayton Act); *Beltone Electronics Corp.*, 100 F.T.C. 68 (1982) (evaluating legality of exclusive dealing under section 5 of the Federal Trade Commission Act). In determining whether an exclusive dealing arrangement is likely to reduce competition in a relevant market, the Agencies will take into account the extent to which the arrangement (1) promotes the exploitation and development of the licensor's technology and (2) anticompetitively forecloses the exploitation and development of, or otherwise constrains competition among, competing technologies.

The likelihood that exclusive dealing may have anticompetitive effects is related, *inter alia*, to the degree of foreclosure in the relevant market, the duration of the exclusive dealing arrangement, and other characteristics of the input and output markets, such as concentration, difficulty of entry, and the responsiveness of supply and demand to changes in price in the relevant markets. (See sections 4.1.1 and 4.1.2.) If the Agencies determine that a particular exclusive dealing arrangement may have an anticompetitive effect, they will evaluate the extent to which the restraint encourages licensees to develop and market the licensed technology (or specialized applications of that technology), increases licensors' incentives to develop or refine the licensed technology, or otherwise increases competition and enhances output in a relevant market. (See section 4.2 and Example 8.)

5.5 Cross-licensing and pooling arrangements

Cross-licensing and pooling arrangements are agreements of two or more owners of different items of intellectual property to license one another or third parties. These arrangements may provide procompetitive benefits by integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation. By promoting the dissemination of technology, cross-licensing and pooling arrangements are often procompetitive.

Cross-licensing and pooling arrangements can have anticompetitive effects in certain circumstances. For example, collective price or output restraints in pooling arrangements, such as the joint marketing of pooled intellectual property rights with collective price setting or coordinated output restrictions, may be deemed unlawful if they do not contribute to an efficiency-enhancing integration of economic activity among the participants. Compare *NCAA* 468 U.S. at 114 (output restriction on college football broadcasting held unlawful because it was not reasonably related to any purported justification) with *Broadcast Music*, 441 U.S. at 23 (blanket license for music copyrights found not *per se* illegal because the cooperative price was necessary to the creation of a

new product). When cross-licensing or pooling arrangements are mechanisms to accomplish naked price fixing or market division, they are subject to challenge under the per se rule. See *United States v. New Wrinkle, Inc.*, 342 U.S. 371 (1952) (price fixing).

Settlements involving the cross-licensing of intellectual property rights can be an efficient means to avoid litigation and, in general, courts favor such settlements. When such cross-licensing involves horizontal competitors, however, the Agencies will consider whether the effect of the settlement is to diminish competition among entities that would have been actual or likely potential competitors in a relevant market in the absence of the cross-license. In the absence of offsetting efficiencies, such settlements may be challenged as unlawful restraints of trade. Cf. *United States v. Singer Manufacturing Co.*, 374 U.S. 174 (1963) (cross-license agreement was part of broader combination to exclude competitors).

Pooling arrangements generally need not be open to all who would like to join. However, exclusion from cross-licensing and pooling arrangements among parties that collectively possess market power may, under some circumstances, harm competition. Cf. *Northwest Wholesale Stationers, Inc. v. Pacific Stationery & Printing Co.*, 472 U.S. 284 (1985) (exclusion of a competitor from a purchasing cooperative not per se unlawful absent a showing of market power). In general, exclusion from a pooling or cross-licensing arrangement among competing technologies is unlikely to have anticompetitive effects unless (1) excluded firms cannot effectively compete in the relevant market for the good incorporating the licensed technologies and (2) the pool participants collectively possess market power in the relevant market. If these circumstances exist, the Agencies will evaluate whether the arrangement's limitations on participation are reasonably related to the efficient development and exploitation of the pooled technologies and will assess the net effect of those limitations in the relevant market. See section 4.2.

Another possible anticompetitive effect of pooling arrangements may occur if the arrangement deters or discourages participants from engaging in research and development, thus retarding innovation. For example, a pooling arrangement that requires members to grant licenses to each other for current and future technology at minimal cost may reduce the incentives of its members to engage in research and development because members of the pool have to share their successful research and development and each of the members can free ride on the accomplishments of other pool members. See generally *United States v. Mfrs. Aircraft Ass'n, Inc.*, 1976-1 Trade Cas. (CCH) ¶ 60,810 (S.D.N.Y. 1975); *United States v. Automobile Mfrs. Ass'n*, 307 F. Supp. 617 (C.D. Cal. 1969), appeal dismissed sub nom. *City of New York v. United States*, 397 U.S. 248 (1970), modified sub nom. *United States v. Motor Vehicle Mfrs. Ass'n*, 1982-83 Trade Cas. (CCH) ¶ 65,088 (C.D. Cal. 1982). However, such an arrangement can have procompetitive benefits, for example, by exploiting economies of scale

and integrating complementary capabilities of the pool members, (including the clearing of blocking positions), and is likely to cause competitive problems only when the arrangement includes a large fraction of the potential research and development in an innovation market. See section 3.2.3 and Example 4.

Example 10

Situation: As in Example 9, two of the leading manufacturers of a consumer electronic product hold patents that cover alternative circuit designs for the product. The manufacturers assign several of their patents to a separate corporation wholly owned by the two firms. That corporation licenses the right to use the circuit designs to other consumer product manufacturers and establishes the license royalties. In this example, however, the manufacturers assign to the separate corporation only patents that are blocking. None of the patents assigned to the corporation can be used without infringing a patent owned by the other firm.

Discussion: Unlike the previous example, the joint assignment of patent rights to the wholly owned corporation in this example does not adversely affect competition in the licensed technology among entities that would have been actual or likely potential competitors in the absence of the licensing arrangement. Moreover, the licensing arrangement is likely to have procompetitive benefits in the use of the technology. Because the manufacturers' patents are blocking, the manufacturers are not in a horizontal relationship with respect to those patents. None of the patents can be used without the right to a patent owned by the other firm, so the patents are not substitutable. As in Example 9, the firms are horizontal competitors in the relevant goods market. In the absence of collateral restraints that would likely raise price or reduce output in the relevant goods market or in any other relevant antitrust market and that are not reasonably related to an efficiency-enhancing integration of economic activity, the evaluating Agency would be unlikely to challenge this arrangement.

5.6 Grantbacks

A grantback is an arrangement under which a licensee agrees to extend to the licensor of intellectual property the right to use the licensee's improvements to the licensed technology. Grantbacks can have procompetitive effects, especially if they are nonexclusive. Such arrangements provide a means for the licensee and the licensor to share risks and reward the licensor for making possible further innovation based on or informed by the licensed technology, and both promote innovation in the first place and promote the subsequent licensing of the results of the innovation. Grantbacks may adversely affect competition, however, if they substantially reduce the licensee's incentives to engage in research and development and thereby limit rivalry in innovation markets.

A non-exclusive grantback allows the licensee to practice its technology and license it to others. Such a grantback provision may be necessary to ensure that the licensor is not prevented from effectively competing because it is denied access to improvements developed with the aid of its own technology. Compared with an exclusive grantback, a non-exclusive grantback, which leaves the licensee free to license improvements technology to others, is less likely to have anticompetitive effects.

The Agencies will evaluate a grantback provision under the rule of reason, *see generally Transparent-Wrap Machine Corp. v. Stokes & Smith Co.*, 329 U.S. 637, 645-48 (1947) (grantback provision in technology license is not per se unlawful), considering its likely effects in light of the overall structure of the licensing arrangement and conditions in the relevant markets. An important factor in the Agencies' analysis of a grantback will be whether the licensor has market power in a relevant technology or innovation market. If the Agencies determine that a particular grantback provision is likely to reduce significantly licensees' incentives to invest in improving the licensed technology, the Agencies will consider the extent to which the grantback provision has offsetting procompetitive effects, such as (1) promoting dissemination of licensees' improvements to the licensed technology, (2) increasing the licensors' incentives to disseminate the licensed technology, or (3) otherwise increasing competition and output in a relevant technology or innovation market. *See* section 4.2. In addition, the Agencies will consider the extent to which grantback provisions in the relevant markets generally increase licensors' incentives to innovate in the first place.

5.7 Acquisition of intellectual property rights

Certain transfers of intellectual property rights are most appropriately analyzed by applying the principles and standards used to analyze mergers, particularly those in the 1992 Horizontal Merger Guidelines. The Agencies will apply a merger analysis to an outright sale by an intellectual property owner of all of its rights to that intellectual property and to a transaction in which a person obtains through grant, sale, or other transfer an exclusive license for intellectual property (i.e., a license that precludes all other persons, including the licensor, from using the licensed intellectual property).³⁷ Such transactions may be assessed under section 7 of the Clayton Act, sections 1 and 2 of the Sherman Act, and section 5 of the Federal Trade Commission Act.

Example 11

Situation: Omega develops a new, patented pharmaceutical for the treatment of a particular disease. The only drug on the market approved for the treatment of this disease is sold by Delta. Omega's patented drug has almost completed regulatory approval by the Food and Drug Administration. Omega has invested considerable sums in product development and market testing, and initial results show that Omega's drug would be a significant competitor

³⁷ The safety zone of section 4.3 does not apply to transfers of intellectual property such as those described in this section.

to Delta's. However, rather than enter the market as a direct competitor of Delta, Omega licenses to Delta the right to manufacture and sell Omega's patented drug. The license agreement with Delta is nominally nonexclusive. However, Omega has rejected all requests by other firms to obtain a license to manufacture and sell Omega's patented drug, despite offers by those firms of terms that are reasonable in relation to those in Delta's license.

Discussion: Although Omega's license to Delta is nominally nonexclusive, the circumstances indicate that it is exclusive in fact because Omega has rejected all reasonable offers by other firms for licenses to manufacture and sell Omega's patented drug. The facts of this example indicate that Omega would be a likely potential competitor of Delta in the absence of the licensing arrangement, and thus they are in a horizontal relationship in the relevant goods market that includes drugs for the treatment of this particular disease. The evaluating Agency would apply a merger analysis to this transaction, since it involves an acquisition of a likely potential competitor.

6. Enforcement of invalid intellectual property rights

The Agencies may challenge the enforcement of invalid intellectual property rights as antitrust violations. Enforcement or attempted enforcement of a patent obtained by fraud on the Patent and Trademark Office or the Copyright Office may violate section 2 of the Sherman Act, if all the elements otherwise necessary to establish a section 2 charge are proved, or section 5 of the Federal Trade Commission Act. *Walker Process Equipment, Inc. v. Food Machinery & Chemical Corp.*, 382 U.S. 172 (1965) (patents); *American Cyanamid Co.*, 72 F.T.C. 623, 684-85 (1967), *aff'd sub. nom. Charles Pfizer & Co.*, 401 F.2d 574 (6th Cir. 1968), *cert. denied*, 394 U.S. 920 (1969) (patents); *Michael Anthony Jewelers, Inc. v. Peacock Jewelry, Inc.*, 795 F. Supp. 639, 647 (S.D.N.Y. 1992) (copyrights). Inequitable conduct before the Patent and Trademark Office will not be the basis of a section 2 claim unless the conduct also involves knowing and willful fraud and the other elements of a section 2 claim are present. *Argus Chemical Corp. v. Fibre Glass-Evercoat, Inc.*, 812 F.2d 1381, 1384-85 (Fed. Cir. 1987). Actual or attempted enforcement of patents obtained by inequitable conduct that falls short of fraud under some circumstances may violate section 5 of the Federal Trade Commission Act, *American Cyanamid Co.*, *supra*. Objectively baseless litigation to enforce invalid intellectual property rights may also constitute an element of a violation of the Sherman Act. See *Professional Real Estate Investors, Inc. v. Columbia Pictures Industries, Inc.*, 113 S. Ct. 1920, 1928 (1993) (copyrights); *Handgards, Inc. v. Ethicon, Inc.*, 743 F.2d 1282, 1289 (9th Cir. 1984), *cert. denied*, 469 U.S. 1190 (1985) (patents); *Handgards, Inc. v. Ethicon, Inc.*, 601 F.2d 986, 992-96 (9th Cir. 1979), *cert. denied*, 444 U.S. 1025 (1980) (patents); *CVD, Inc. v. Raytheon Co.*, 769 F.2d 842 (1st Cir. 1985) (trade secrets), *cert. denied*, 475 U.S. 1016 (1986).

Exhibit GC

IN THE MATTER OF THE ARBITRATION BETWEEN

CYLINK CORPORATION AND CARO-KANN CORPORATION, ON THE ONE HAND

AND

RSA DATA SECURITY, INC., ON THE OTHER HAND

ORDER AND DECISION REGARDING LIABILITY, DISSOLUTION
OF PKP AND DECISION ON RSA'S MOTION FOR JUDGMENT
AND CYLINK'S CROSS MOTION FOR JUDGMENT

The parties, through their respective counsel, have appeared before the full arbitration panel (the "Panel") at hearings conducted from May 9, 1995 to June 8, 1995 . and the Panel has considered the testimony, arguments and evidence regarding liability of the various parties for acts and failures to act under the various agreements connecting the parties. In addition, RSA filed a Motion for Judgment ("Motion for Judgment") on May 18, 1995 and Cylink / Caro-Kann filed an Opposition of Cylink & Caro-Kann to Motion of RSA Data Security, Inc. for Judgment and Cross-motion for Judgment ("Cylink Opposition").

THE PANEL NOW FINDS AND ORDERS as follows:

1. In formulating this Order and Decision, the Panel has reviewed the various arbitration demands of the parties and has reviewed the various testimony and positions taken at the closing arguments which occurred on June 8, 1995. The Panel has determined the questions presented fall essentially into the following categories:

- (a) Should Public Key Partners ("PKP") be dissolved?

(b) If there is a decision to dissolve PKP, how should the assets of PKP be distributed and how should the winding up of the partnership affairs of PKP be managed?

(c) Is Cylink entitled to license under the MIT patents and, if so, what should be the extent of any such license? and

(d) Is either party liable to the other for any damages resulting from breach or lack of performance under the various agreements entered into between the parties?

(e) Is either party entitled to collect from the other party any of its fees and costs in connection with the arbitration?

2. Dissolution of PKP: There are three avenues under which PKP may be dissolved.

(a) Dissolution by agreement: First, PKP may be dissolved by agreement of the parties. Although this avenue was explored during an earlier hearing, it was clear that the parties were not in agreement on the terms under which PKP should be dissolved. Therefore, the Panel finds that PKP will not be dissolved by agreement of the parties.

(b) Dissolution as a result of a "Terminating Event": Second, PKP may be dissolved as a result of a "Terminating Event" as that term is used in the General Partnership Agreement. There is only one Terminating Event which has been put forward by either party--the commission of a Material Breach by a Partner. A review of the General Partnership Agreement shows that the only Material Breach which is put forward by either party is a breach of Article 6, Paragraph 12. Both parties are accused by the other party of breaching Article 6, Paragraph 12. Although the Panel has reviewed the various testimony, evidence and arguments put forward by both parties regarding breach of Article 6, Paragraph 12, the Panel does not find

sufficient evidence to hold that either party has breached Article 6, Paragraph 12 or, at least to the extent a party has breached this paragraph, the other party has as well and the Panel would find the parties to be equally at fault for breach. For this reason, the Panel finds that PKP will not be dissolved as a result of a Terminating Event and, in particular, will not be dissolved as a result of a Material Breach of Article 6, Paragraph 12. Therefore, the purchase rights contemplated by Article 9, Paragraph 5(d) are not available to either party. In addition to the above-stated reason for not finding a breach of Article 6, Paragraph 12, the Panel does not find any sufficient evidence of notice by either party to the other party to find compliance with Article 9, Paragraph 4.

(c) Dissolution pursuant to the Panel's equitable powers:

Third, PKP may be dissolved pursuant to the Panel's equitable powers pursuant to Article 12, Paragraph 1. Based on the testimony, evidence and arguments of the parties, it is clear to the Panel that PKP cannot continue as a partnership and, as an matter of equity, should be dissolved. The parties appear to agree that, in any event at the conclusion of this arbitration process, PKP should be dissolved or otherwise wound up. See, e.g., Hearing Transcript, June 8, 1995, pp. 2069-2070:

ARBITRATOR BUNSOW: . . . What would be the effect of a finding that neither party has committed a material breach? Would it end in a voluntary dissolution?

MR. FLINN: I believe we then proceed down the path of a voluntary consensual dissolution. Neither party wants to be in a partnership with the other, and whatever the law provides for or the contract provides for, the effect of a consensual dissolution is the result.

ARBITRATOR BUNSOW: Do you concur?

MR. BUSSELLE: I know the Panel is going to be shocked, but I absolutely agree.

Therefore, pursuant to the Panel's equitable powers under Article 12, Paragraph 1, the Panel hereby orders that PKP is dissolved effective on the date of this order.

3. Distribution of Assets of PKP: Having determined and ordered that PKP is dissolved pursuant to the Panel's equitable powers, the Panel is now faced with the question of how assets of PKP shall be divided. As has been stated above, to the extent the Panel has generally found any evidence of fault on the part of one party, it has also found evidence of fault on the part of the other party. Therefore, the Panel is convinced that liability, if any, resulting from breach of the various agreements can be dealt with through money damages payable from one party to the other. Liability will be dealt with in greater detail below. However, excepting liabilities and damages resulting therefrom, the Panel is of the opinion that the fairest distribution of assets of PKP will be in accordance with the terms of the General Partnership Agreement for dissolution and liquidation of the partnership where there is not a purchase of the assets of the partnership by one party or the other (see, Article 9, Paragraph 6). These are the terms the parties negotiated for and agreed to prior to formation of this PKP and the Panel is, therefore, of the opinion that these terms represent overall fair terms for liquidation of the assets under the present circumstances. Therefore, the Panel orders distribution of the assets of PKP as follows:

- a) Pursuant to Article 9, Paragraph 8 of the General Partnership Agreement, the "Licensed Rights" as that term is used in the General Partnership Agreement shall be distributed to the Partners as provided in the Cylink License Agreement and the RSA License Agreement. RSA will continue to receive 20% of all royalties received by CKC, its Affiliates or assignees (including Cylink) from any sublicenses

covered by the Stanford Agreement entered into after the date of this order. These payments shall be made in quarterly payments on the last day of the month following the end of each calendar quarter for any royalties received in the prior calendar quarter and shall be accompanied by a royalty report detailing the basis on which the payment to RSA has been calculated. RSA shall have a reasonable right to an accounting.

b) Other assets of PKP shall be distributed in accordance with Article 5, Paragraph 2 of the General Partnership Agreement. For clarification, debts and obligations of PKP to creditors other than the partners including any costs, fees, and settlements for any outstanding litigation to which PKP is a party shall be paid first. No assets of PKP shall be distributed to the parties pursuant to Article 5, Paragraph 2 until all such litigation is settled or until the parties agree on a distribution formula.

c) In accordance with Article 5, Paragraph 2(d), an agent shall be appointed to collect and distribute any royalties. The parties shall meet and confer regarding appointment of an agreeable agent within ten (10) days from the date of this order and, if they cannot agree, each party shall submit the names and a summary of the qualification of two (2) agents to the Panel within fifteen (15) days from the date of this order. The Panel will then select an agent to act in accordance with Article 5, Paragraph 2(d).

d) Additionally, the Panel has considered the disposition of the agreement entered into between Dr. Schnorr and PKP, since this agreement is an asset of PKP. Since neither Cylink/Caro-Kann nor RSA is awarded the right to purchase partnership assets, it follows that neither

has superior rights as against the other to acquire rights to the Schnorr patent. Therefore, the Panel orders as follows:

- (i) Immediately, upon receipt of this order, both parties shall notify Dr. Schnorr that PKP has been dissolved; and
- (ii) As part of such notification, Dr. Schnorr shall be told ~~that he may, if he desires,~~ terminate his agreement with PKP effective immediately; and
- (iii) In the absence of Dr. Schnorr terminating the agreement, the agreement shall be considered an asset of PKP subject to management and disposition by the agent discussed above in Paragraph 3(c).

4. Cylink's right to a license under the MIT Patent: Cylink has argued it is entitled to a license under United States Patent Number 4,405,829 (the "MIT Patent") as a result of the Agreement of Intent, Paragraph 4.3(a)(iv). To quote the language of that paragraph:

"(iv) To Cylink, an option to sublicense the right to make, use and sell products which would otherwise infringe on the Licensed Rights presently licensed to RSA under the MIT Agreement on terms acceptable to Cylink, which acceptance can not be unreasonably withheld."

This option was to be delivered at closing according to the terms of the Agreement of Intent. At closing a document was executed by both parties (Cylink Ex. 6) which states in pertinent part:

"... as required by Section 4.3(a)(iv) of the Agreement of Intent... RSA Data Security, Inc. hereby grants to Cylink Corporation ("CYLINK") an irrevocable option to license the right to make, use and sell products incorporating software provided by RSA practicing methods described in US Patent #4,405,829 by Rivest et al."

The parties are in dispute regarding whether the option provided in Exhibit 6 is the option which RSA was required to deliver under the terms of the Agreement of Intent. The panel has heard testimony, arguments and reviewed evidence regarding this point and the panel finds and orders as follows:

(a) The Agreement of Intent was an integrated agreement at least by virtue of the integration clause included at Article 12, Paragraph 12 of the General Partnership Agreement. The integrated agreement includes all written provisions of the General Partnership Agreement, the Agreement of Intent, Exhibit 6, the Cylink License Agreement and the RSA License Agreement.

(b) The language of Exhibit 6 unambiguously grants to Cylink an option to license the right to make, use and sell products which would otherwise infringe on the Licensed Rights licensed to RSA under the MIT agreement. This language is an option for a patent license, although a limited one. It is limited in the sense that, should Cylink choose to exercise its option, only products made, used or sold by Cylink incorporating software provided to Cylink by RSA would be licensed. Exhibit 6 was signed by an officer of Cylink and, therefore, must have been reasonably acceptable to Cylink. Therefore, the Panel finds that the option to license granted by Exhibit 6 fulfilled the obligations of RSA under Section 4.3(a)(iv) of the Agreement of Intent. To clarify a point, the parties in the RSA Motion for Judgment and in the Cylink Opposition both appear to base arguments somehow around the question of the effect of Exhibit 6 as a "software license". The Panel has found that Exhibit 6 is an option for a patent license and, therefore, the question of whether the grant of an option for a software license is effective as the delivered required under the Agreement of Intent,

Paragraph 4.3(a)(iv) is moot. The Panel recognizes the argument raised by Cylink in the Cylink Opposition that to change paragraph 4.3(a)(iv) to require a software license would controvert the intention of the parties. *See, Cylink Opposition, page 6.* However, again, the Panel finds what was granted by RSA was an option for a patent license. Cylink, in the Cylink Opposition, makes the statement that "all parties acknowledged that the software license option was *not* the patent sublicense option required by the Agreement of Intent." (emphasis original). *See, Cylink Opposition, page 6.* However, the Panel does not find evidence of such agreement and, even if it did, the Panel is of the opinion that the integrated agreements themselves are clear that an option for a patent license was required and an option for a patent license was granted and any parole evidence, even evidence of later agreement that Exhibit 6 was not a patent license, has no substantive effect.

(c) Because the Panel finds the Agreement of Intent is an integrated agreement and the Panel finds the language of the Agreement of Intent and the language of Exhibit 6 is unambiguous, the Panel is not persuaded to consider the various arguments of Cylink relating to verbal statements that may or may not have been made before, during or after execution of the Agreement of Intent. The Panel, in essence agrees with the position of RSA, that "the agreements signed at the April 6, 1990 closing were a 'final, complete and exclusive' statement of the parties' agreement" (see RSA's Motion for Judgment, pp. 6) at least as to this issue.

Cylink argues in its closing brief (See page 5) that RSA is estopped from refusing to grant to Cylink a patent license because Cylink reasonably relied to its detriment on the undisputed representation that Cylink could always have a patent

license. To the extent it is undisputed that RSA made such a representation, in a light most favorable to Cylink, there is a dispute regarding what the terms of such a patent license would be. To now say that Cylink is entitled to a license because it reasonably relied, to its detriment, on statements of RSA that a patent license would be available to Cylink without having clear agreement as to the terms of such license would be to say that a businessman is entitled to purchase a product, sale of which product typically is the subject of significant negotiation, simply because he was told by the owner of the product that it could be purchased without further discussion of price and other terms. This Panel simply does not find it to have been reasonable for Cylink to have relied to its detriment on statements such as "You can always have a patent license" absent evidence that the parties had also reached agreement as to what the terms of such license would be. The Panel does not find any evidence to show such an agreement was reached and, in fact, the evidence is to the contrary.

Cylink also argues in its closing brief (again, see page 5) that RSA was obligated, as a fiduciary in the PKP partnership, to allow PKP to offer a license under the MIT patent to Cylink. The Panel finds that to the extent there was an obligation on the part of RSA to allow PKP to offer a license to Cylink, PKP did offer such a license when it offered the "LEMCOM type" license to Cylink. The terms of the "LEMCOM type" license were apparently unacceptable to Cylink and Cylink did not accept the license offer. The panel finds that RSA was not obligated to offer terms different than the "LEMCOM type" license to Cylink as a result of any fiduciary obligation of RSA. Today, as a result of the dissolution of PKP, RSA no longer has a fiduciary obligation to offer any license, LEMCOM type or otherwise, to Cylink although it may obviously choose to do so.

We will now briefly touch on the question of whether Cylink is entitled to a license under the MIT patent as a result of any commitments PKP may have made to license the MIT patent on a non-discriminatory or similar basis. There has been

testimony and evidence that PKP did commit to standards organizations (ANSI) that it would license the MIT patent on a non-discriminatory basis if the invention claimed by the patent were adopted as a standard. Cylink has raised the question of whether the LEMCOM type license is non-discriminatory. The Panel does not find a need to address this question because the offer to the standards committee was subsequently withdrawn and, in any event, the invention claimed by the patent was not adopted as a standard. Therefore, at this point in time, PKP is not obligated as a result of agreements with standards organizations to license Cylink under the MIT patent.

To respond and rule on the May 18, 1995 Motion for Judgment and on Cylink's Cross Motion for Judgment, RSA asked this Panel for judgment on the issue of whether Cylink is entitled to a license under the April 6, 1990 agreements that effected the formation of PKP. In its motion, RSA urged this Panel to order that Cylink is not entitled to any license other than the license offered in Exhibit 6. In its opposition, Cylink took the position that RSA's Motion for Judgment could be granted only if paragraph 4.3(a)(iv) of the Agreement of Intent was written out of the contract. See, Cylink Opposition at page 1. Cylink argues and moves in the Cylink Opposition that it is entitled to judgment that RSA must deliver to Cylink an option to sublicense the MIT patent on terms acceptable to Cylink. For all of the reasons stated above, the Panel disagrees with Cylink's position that the Panel would be writing paragraph 4.3(a)(iv) out of the agreement by granting RSA's Motion for Judgment. Therefore, the Panel hereby grants RSA's Motion for Judgment and denies Cylink's Cross Motion for Judgment.

5. Liabilities of the parties for breach of the agreements: The Panel is now faced with the question of whether either party is liable to the other for any breach of the various provisions of the integrated agreements. Based on closing hearing transcript at pages 2062-2065, the Panel understands the issues regarding

liability which the parties are now asking for a decision on to be those issues for which relief is requested at page 20 of the Cylink Closing Brief and at page 20 of the RSA closing brief

(a) Liability on the part of RSA: The issues which the Panel has been requested to decide by Cylink, and the Panel's findings and orders regarding those issues are as follows:-

(i) MIT patent license: Cylink has requested that this Panel find Cylink is entitled to a license in the form submitted with its Closing Brief. As was discussed in some detail above, the Panel has found that to the extent RSA was obligated to offer to grant to Cylink any license under the MIT patent, it has done so both by providing the option to license in Exhibit 6 and by allowing PKP to offer the "LEMCOM type" license to Cylink. Therefore, the Panel does not find Cylink to be entitled to a license in the form submitted and this request is denied.

(ii) Breach of the Agreement by failure to deliver an MIT patent license: Cylink has requested that this Panel find a breach of the Agreement of Intent by RSA's failure to deliver a patent license. As the Panel has concluded that the required patent license was delivered as Exhibit 6, the Panel does not find a breach by RSA of the Agreement of Intent on this grounds.

(iii) A finding that RSA materially breached the Partnership Agreement by violating Article 6, ¶12 and an order entitling Caro-Kann to remedies pursuant to Article 9, Paragraph 5(d) and Cal.Corp. Code §15038: As stated above, the Panel does not find sufficient evidence to hold that either party has breached Article 6, Paragraph 12 or, at least to the extent a party has breached this paragraph, the other party has as well and the Panel would find the parties to be equally at fault for breach. Further, even if there was a material breach, the Panel does not find evidence of the notice with opportunity to cure required by the

agreement. As a result, the request by Caro-Kann for an order entitling it to remedies pursuant to Article 9, Paragraph 5(d) and Cal. Corp.Code §15038 is denied.

As to other alleged breaches by RSA, the Panel does not at this time find it to be necessary to enter a finding of fault. However, if requested by Cylink or Caro-Kann, the Panel will consider the question of specific other alleged breaches and whether or not any such alleged breaches results in liability on the part of RSA.

(iv) A finding against RSA on all of the claims tendered by it: These claims and the panels findings will be discussed below.

(v) A finding that neither Cylink or Caro-Kann committed any material breach of the partnership agreement: Again, the Panel does not find sufficient evidence to hold that either party has breached Article 6, Paragraph 12 or, at least to the extent a party has breached this paragraph, the other party has as well and the Panel would find the parties to be equally at fault for breach. Further, even if there was a material breach, the Panel does not find evidence of the notice with opportunity to cure required by the agreement. Therefore, the Panel does not find any liability on the part of Cylink or Caro-Kann for any material breach of the partnership agreement.

(vi) A finding that Cylink and Caro-Kann are not liable for the duties or conduct of each other: The Panel finds that the corporate veil should not be pierced and that Cylink should not be liable for the liabilities of its subsidiary, Caro-Kann.

(vii) A decree dissolving Public Key Partners: The Panel has ordered Public Key Partners dissolved as of the date of this order consistent with the other orders and findings contained herein.

(b) Liability on the part of Cylink / Caro-Kann: The issues which the Panel has been requested to decide by RSA, and the Panel's findings and orders regarding those issues are as follows:

(i) A finding that Cylink has breached both the partnership agreement and its fiduciary duty owed to RSA and PKP and that RSA has been damaged thereby: As stated above, the Panel does not find sufficient evidence to hold that either party has breached Article 6, Paragraph 12 or, at least to the extent a party has breached this paragraph, the other party has as well and the Panel would find the parties to be equally at fault for breach. Further, even if there was a material breach, the Panel does not find evidence of the notice with opportunity to cure required by the agreement. Therefore, the Panel does not find any liability on the part of Cylink or Caro-Kann for any material breach of the partnership agreement.

As to other alleged breaches by Cylink or Caro-Kann, the Panel does not at this time find it to be necessary to enter a finding of fault. However, if requested by RSA, the Panel will consider the question of specific other alleged breaches and whether or not any such alleged breaches results in liability on the part of Cylink or Cara-Kann.

(ii) A finding that RSA has not breached its contractual or fiduciary obligations owed to Cylink or PKP and that RSA has the right to continue to license software that incorporates both the MIT and Stanford Patented Technology: Again, the Panel does not find sufficient evidence to hold that either party has breached Article 6, Paragraph 12 or, at least to the extent a party has breached this paragraph, the other party has as well and the Panel would find the parties to be equally at fault for breach. Further, even if there was a material breach, the Panel does not find evidence of the notice with opportunity to cure required by the agreement. Therefore, the Panel does not find any liability on the part of RSA for any material breach of the partnership agreement.

As stated above, the Panel does not find it to be necessary to reach a decision at this time regarding any other alleged breaches and will withhold any such findings unless specifically requested to Cylink or Caro-Kann to enter such findings.

With respect to RSA's right to license software that incorporates the MIT and Stanford patented technology, the Panel finds as follows:

a) Post-partnership formation

licenses¹: The Panel finds that RSA does not have the right to sublicense third-parties under the Stanford patents and has not had such right since entering into the partnership agreement on April 6, 1990. Therefore, after April 6, 1990, RSA has the right to license its (RSA's) software to third-parties but does not have the right to license such third-parties under the Stanford patents. To the extent RSA provides code to third-parties which causes an infringement of a valid and enforceable claim of the Stanford patents, assuming the third party is not separately licensed under the Stanford patent, nothing in this order shall prevent Cylink from pursuing its rights under the Stanford patents against such third party. However, certain transactions between RSA and third-parties may be subject to the first sale doctrine. Nothing in this order is intended to remove application of that doctrine.

By way of example, if RSA provides a license of a single copy of its software, together with that copy of the software, to a third-party, the first sale doctrine will protect the third-party from any claim under the Stanford patents with respect to that individual copy. However, if RSA provides a license of its software, with right to prepare unlimited copies, to a third-party, the Panel finds that the first sale doctrine will not protect the third-party from suit on the Stanford patents.

b) Existing licensees: The Panel finds that RSA did have the right to sublicense the Stanford patents prior to April 6, 1990. Therefore, the Panel finds that any sublicense granted by RSA prior to April 6, 1990 is

¹Nothing in this order shall effect the order previously issued by the Panel concerning Netscape.

not effected by this order and unless terminated pursuant to the terms of such license, is valid and allows the third-party rights under the Stanford patents as provided in the license.

(iii) A finding that Cylink is not contractually entitled and RSA is not contractually obligated to provide to Cylink a license to the MIT patent: As discussed above, except for the option to Cylink given in Exhibit 6, Cylink is not entitled to, contractually or under any of the other theories advanced by Cylink, a license to the MIT patent and RSA is, therefore, not obligated to provide any license to Cylink except the limited patent license afforded by Exhibit 6 if Cylink should choose to exercise its option.

(iv) A finding that the partnership shall be dissolved: The Panel has ordered Public Key Partners dissolved as of the date of this order consistent with the other orders and findings contained herein.

(v) An order that Cylink shall pay to RSA any and all of the costs and expenses incurred by RSA in the Arbitration including actual attorneys fees, as set forth in Article 12, Paragraph 6 of the Partnership Agreement: The Panel finds that neither party shall be entitled to an award of costs and expenses incurred to date in this arbitration.

IT IS SO ORDERED on this 6th day of September
1995.

By: G. C. Limbach
George C. Limbach, Esq.
Chairman of the Arbitration Panel

By: Henry C. Bunsow
Henry C. Bunsow, Esq.
Member of the Arbitration Panel

By: David R. Halvorson
David R. Halvorson
Member of the Arbitration Panel

Exhibit GD

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Attorneys for Plaintiff, Counterclaim-
 9 Defendant, and Counterclaimant
 RSA Data Security, Inc.
 10

11 UNITED STATES DISTRICT COURT
 12 NORTHERN DISTRICT OF CALIFORNIA
 13

14 RSA DATA SECURITY, INC., a
 Delaware corporation,
 15

Plaintiff,
 16

v.
 17

18 CYLINK CORPORATION, a California
 corporation, CARO-KANN
 CORPORATION, a California
 19 corporation, and THE BOARD OF
 TRUSTEES OF THE LELAND
 20 STANFORD JUNIOR UNIVERSITY, a
 California corporation,
 21

Defendants.
 22

23 AND RELATED COUNTERCLAIMS.
 24

Case No. C96-20094-SW

RSA DATA SECURITY, INC.'S
 OBJECTIONS AND RESPONSES TO
 DEFENDANTS' FIRST SET OF
 INTERROGATORIES

25 Pursuant to Federal Rule of Civil Procedure 33, plaintiff, counterclaim
 26 defendant and counterclaimant RSA Data Security, Inc. ("RSA") hereby objects and resp
 27 to defendants' First Set of Interrogatories as follows:

28 RSA's Objections and Responses to
 Defendants' First Set of Interrogatories
 Case No. C96-20094-SW

1 RESPONSE TO INTERROGATORY NO. 3

2 Pursuant to General Objection No. 9, RSA objects to this interrogatory
3 as seeking RSA's contentions regarding claims (or accused devices and/or methods) that
4 Defendants have not identified as asserted claims in this litigation on Exhibit A to their
5 responses to RSA's First Set of Interrogatories. Those are the only claims asserted in the
6 litigation, and RSA contends that Defendants cannot hereafter assert additional claims with
7 leave of court. In the event that Defendants are granted such leave, RSA reserves the right
8 to supplement these responses. Subject to and without waiving its general and specific
9 objections, RSA's response to this interrogatory is set forth on Attachments A and B here

10
11
12 INTERROGATORY NO. 4

13 Do you assert advice of counsel as a defense to Defendants' allegation of v
14 infringement?

15
16 RESPONSE TO INTERROGATORY NO. 4

17 Yes.

18
19 INTERROGATORY NO. 5

20 If your answer to Interrogatory No. 4 is anything other than an unqualified
21 describe fully the facts relating to any advice you have received relating to the Stanford
22 Patents, including, but not limited to, an identification of the parties that prepared or received
23 such advice and a full description of that advice and any other advice received by you relating
24 to the Stanford Patents.

25
26 RESPONSE TO INTERROGATORY NO. 5

1 RSA objects to this interrogatory as vague, ambiguous and overbroad in its
 2 request for all "facts relating to any advice" received "relating to" the patents in suit. RS/
 3 similarly objects to the request for a description of "that advice and any other advice" as
 4 incomprehensible. At present, RSA intends to rely upon the advice letters already provide
 5 Defendants and/or that are already in Defendants' possession. D. James Bidzos received
 6 copies of the Cushman Darby and Cushman analysis in 1986. The Meltzer Lippe analyses
 7 were transmitted to Paul Livesay in January 1996.

8
 9 **INTERROGATORY NO. 6**

10 State each basis upon which you assert that any claim of the Stanford Patent
 11 invalid.

12
 13 **RESPONSE TO INTERROGATORY NO. 6**

14 RSA objects to this interrogatory as premature in that discovery regarding the
 15 patents in suit has not yet been completed. The interrogatory is also premature to the degree
 16 that Defendants have yet to identify the claims of the patents in suit that they contend are
 17 infringed by RSA. Subject to and without waiving its general and specific objections, RSA
 18 responds as follows as regards the asserted claims:

19 A. **The Diffie Hellman Patent**

- 20 1. 35 U.S.C. § 102(b);
 21 2. 35 U.S.C. § 102(a) and (g);
 22 3. 35 U.S.C. § 103.

23
 24 B. **The Hellman-Merkle Patent**

- 25 1. 35 U.S.C. § 101;
 26 2. 35 U.S.C. § 102(a);

1 Stanford's Office of Technology Licensing was fully informed of the Cushman Darby &
2 Cushman analysis.

3 In about 1992, D. James Bidzos formed a belief that the Diffie Hellman pat
4 might be invalid when he learned from representatives of AT&T that a printed publication
5 setting forth the Diffie Hellman invention had been made available to individuals skilled in
6 art more than one year before the Diffie Hellman application was filed. Mr. Fougner from
7 Cylink was present when the AT&T representations were made.

8
9 Dated: June 19, 1996
10
11

12 HELLER EHRMAN WHITE & McAULIFFE

13
14 By: Robert D. Fram
15 Robert D. Fram

16 Attorneys for Plaintiff, Counterclaim-Defendar
17 and Counterclaimant RSA Data Security, Inc.
18
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27

Exhibit GE

[RSALogo] FOR IMMEDIATE RELEASE

RSA NEWS RELEASE

RSA DATA SECURITY, INC. TO EXCLUSIVELY LICENSE RIGHTS TO RSA PUBLIC KEY ENCRYPTION AND DIGITAL SIGNATURE STANDARD (DSS) TECHNOLOGIES

COMPANY BECOMES ONE-STOP WORLDWIDE SOURCE FOR ENCRYPTION TECHNOLOGY

REDWOOD CITY, Calif., Oct. 12, 1995 -- RSA Data Security, Inc. today announced that it is now licensing patents for the Digital Signature Standard (DSS), the U.S. government standard for digital signatures. RSA also announced that it has renewed its exclusive licensing agreement for the industry-standard Rivest-Shamir-Adleman (RSA) public key cryptosystem developed at the Massachusetts Institute of Technology (MIT). With the addition of DSS technology to its portfolio of encryption offerings, RSA Data Security has become the exclusive source for the industry's most widely accepted security technologies.

RSA also announced that under its uniform, non-discriminatory licensing plan, manufacturers will pay a one-time royalty when they sell products containing RSA and/or DSS technology. No additional per-certificate or use charges are required.

"For the first time, the patents covering the most popular encryption and digital signature methods in the world, RSA and DSS, are easily available on a non-discriminatory basis from a single vendor," said Jim Bidzos, president of RSA. "By offering one-stop shopping for both systems, our customers can seamlessly integrate both RSA encryption and DSS digital signature methods into their products."

WIDESPREAD IMPLEMENTATION

Many of RSA's software licensees -- such as Adobe, Aquila, Atalla, National Semiconductor, Spyrus, Premenos, Spyglass, Terisa Systems, Frontier Technologies, BroadVision, Checkpoint Software, Raptor Systems, SafeCo Insurance, Wollongong, Square D, Interval Systems, and Comm-Press -- have already requested patent licenses to both the RSA and DSS techniques for use in software and hardware systems. IBM and Siemens currently offer DSS-based products, licensed under RSA's DSS patent, to the U.S. government.

"Now that vendors can obtain DSS and RSA patents from one source, we expect to see companies throughout the U.S., Europe and Japan incorporate RSA and DSS technology into dozens of products, including access control systems, network management systems, smart cards, link encryptors, and wireless encryption devices," said Bidzos.

"The demand for these technologies is very strong and will continue to grow as vendors increasingly incorporate security features into their products. In the next several months we expect to be inundated with requests from licensees. This is great news for the security industry, which has waited patiently for easy availability of the RSA and DSS patents."

DIGITAL SIGNATURES

A digital signature on an electronic document is an encrypted form of data equivalent to a signature on a printed document, such as a contract or other commercial agreement. It verifies that the document is valid and unaltered, and that the person signing the document has agreed to its terms. Furthermore, secure digital signatures cannot be repudiated. The signer of a document cannot disown it by claiming it was forged. Both DSS and RSA support digital signatures and certificates. Several states, including California and Utah have recently enacted legislation recognizing digital signatures as legally binding.

LICENSE AVAILABILITY

Uniform licenses to both the RSA and DSS/Schnorr patents are available immediately. The license text, as well as other information regarding these patents, is available on RSA Data Security's home page at <http://www.rsa.com>. For existing customers of RSA's BSAFE and TIPEM software toolkits, no separate patent licenses are required. All rights under the patents to use, integrate and copy RSA's software are embedded.

RSA DATA SECURITY, INC.

RSA Data Security, Inc. is the world's brand name for cryptography, with more than 15 million copies of RSA encryption and authentication technologies installed and in use worldwide. RSA technologies are part of existing and proposed standards for the Internet and World Wide Web, CCITT, ISO, ANSI, IEEE, and business, financial and electronic commerce networks around the globe. The company develops and markets platform-independent developers kits and end-user products and provides comprehensive cryptographic consulting services. Founded in 1982 by the inventors of the RSA Public Key Cryptosystem, the company is headquartered in Redwood City, California.

For information about RSA:

Patrick Corman or Lisa Croel
Corman/Croel Marketing & Communications
(415) 326-9648 or (415) 326-0487
corman@cerf.net or lcroel@mediacity.com

For information regarding licensing RSA or DSS patents, contact:

Paul Livesay
RSA Data Security, Inc.
(415) 595-8782
pol@rsa.com

For information regarding licensing RSA or DSS toolkits, contact:

Paul Gordon
RSA Data Security, Inc.
(415) 595-8782
paul@rsa.com

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RSA Public Key Cryptosystem, BSAFE and TIPEM are trademarks of RSA Data Security, Inc. All other product or company names are trademarks of their respective corporations.

Exhibit GF

RSA DATA SECURITY, INC.

Patent License Agreement

This Patent License Agreement ("Agreement"), dated and effective as of the latter date of execution ("Effective Date"), is made and entered into by and between RSA Data Security, Inc. ("RSA"), a Delaware corporation with principal offices at 100 Marine Parkway, Redwood City, California 94065, and _____ ("Licensee"), a _____ corporation located at _____.

R E C I T A L S

WHEREAS, RSA holds exclusive sublicensing rights to certain patents in the field of public key cryptography; and

WHEREAS, Licensee desires a sublicense to practice public key cryptography upon the terms and conditions described herein.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties agree as follows:

A G R E E M E N T

1. Definitions.

- 1.1 "Licensed Patent" means the inventions, methods and devices described and claimed in the following patent registered in the United States of America:

Cryptographic Communications System and Method No.
4,405,829

- 1.2 "Licensed Product" means any and all products (devices or software) which employ or are produced by the practice of inventions claimed in the Licensed Patent, and if made, used or sold by or for Licensee in the absence of the license granted in this Agreement would infringe the Licensed Patent, and which are specifically identified in Exhibit A, attached hereto. A Licensed Product may not be a software toolkit product which, for the purposes of this Agreement, shall mean any product consisting of the software modules that can be incorporated into another product, such modules which have as their primary purpose accessing cryptographic algorithms (including, without limitation, public key encryption or decryption, key generator and signature certification) and performing the cryptographic algorithm. Exhibit A shall be amended by Licensee from time to time to add, delete or modify the Licensed Products listed thereon.

- 1.3 "Net Sales Price" means the gross selling price of a Licensed Product in the form in which it is Sold by Licensee,

without excluding therefrom any components or subassemblies thereof, whatever their origin and whether or not all such components and subassemblies are covered by the Licensed Patent, less the following items but only insofar as they actually pertain to the Sale of such Licensed Product by Licensee, and are included in the gross selling price, and such items are separately billed on Licensee's invoices: (i) customs duties, import, export, excise, and sales taxes directly imposed with reference to particular sales; (ii) costs of insurance and transportation from the place of manufacture to the purchaser's or lessee's place of use; and (iii) credit for returns, allowances or trades. No deductions shall be made for commissions paid to individuals whether they are employed by independent sales agencies or regularly employed by Licensee or for cost of collections.

1.4 "Territory" means the United States of America, its territories and possessions, so long as the Licensed Patent is in full force and effect in accordance with applicable law.

1.5 "Sell," "Sale" and "Sold" mean to sell, lease or otherwise transfer or dispose of that product to end users, either directly or through the use of distributors of the Licensed Products. For purposes of payment and accounting to RSA for royalties due pursuant to this Agreement, a "sale" or "lease" of a Licensed Product shall be deemed to have occurred, as follows:

(a) A "sale" of any Licensed Product shall be deemed to have occurred as of the date of shipment by Licensee or the date of dispatch of a bill or invoice, whichever shall first occur.

(b) A "lease" of any Licensed Product shall be deemed to have occurred as of the date of shipment by Licensee to a lessee thereof, or the date of dispatch of an initial bill or invoice to any such lessee, whichever shall first occur. In the event of any lease, royalties will be calculated on Licensee's then-current list price for the Licensed Product.

2. License.

2.1 Grant. RSA hereby grants to Licensee under the Licensed Patent a non-exclusive, non-transferable license, without right to sublicense, to make, have made (solely as defined in Section 2.2 below), use and Sell Licensed Products in the Territory. Nothing in this Agreement shall be construed to grant Licensee any right:

(a) under the Licensed Patent other than with respect to the Licensed Products; or

(b) to sublicense, transfer or assign, in whole or in part, any of its rights under this Agreement, whether by operation of law, implication, estoppel or otherwise.

2.2 Have Made Rights. All Licensed Products shall be developed, engineered or otherwise created by Licensee. Licensee's "have made" rights granted in Section 2.1 above are limited to include, for production purposes only, the right to authorize one or more third parties to manufacture (in the case of hardware) and/or reproduce (in the case of software) Licensed Products for Sales and distribution thereof, and such "have made" rights otherwise specifically exclude the right to outsource the development of, or acquire from third parties, the Licensed Products.

2.3 End User Right to Copy. Notwithstanding the prohibitions in Section 2.1(b), Licensee may authorize end users to make a single copy of software Licensed Products (consisting solely of object code) strictly for archival purposes.

3. Consideration.

3.1 Initial License Fee. Licensee shall pay the sum of Twenty-Five Thousand Dollars (\$25,000) upon the execution of this Agreement. This sum shall be deemed earned upon the execution of this Agreement by RSA and shall be nonrefundable.

3.2 Annual Prepaid Royalty. Licensee shall pay RSA an annual prepaid royalty of Five Thousand Dollars (\$5,000) beginning and due on the first anniversary of the Effective Date of this Agreement and each subsequent anniversary thereof until expiration or termination hereof. Each annual prepaid royalty shall be recoverable against royalties (as described in Section 3.3 below) due by Licensee during the following year at a rate of Fifty Percent (50%) until the entire annual prepaid royalty has been recovered. Each annual prepaid royalty shall be non-cumulative, and any amounts not recovered during the applicable years shall be deemed earned by RSA and shall not be allocable against any royalties in previous or subsequent years.

3.3 Royalty. In addition to the license fees due pursuant to Section 3.1 above, Licensee shall pay RSA, during the term of this Agreement, a royalty of Two Percent (2%) of the Net Sales Price for each Licensed Product made or Sold in the Territory with a minimum per unit royalty of Two Dollars (\$2.00).

4. Payment, Records and Accounting.

4.1 Payment. All royalty payments are due to RSA for each calendar quarter within sixty (60) days after the end of each such calendar

quarter. In the event of Licensee's failure to make any required payment on or before the required date, a late payment penalty equal to one and one-half percent (1½%) of the amount otherwise due, or the maximum amount permitted by law, whichever is less, shall be paid by Licensee for each month or portion thereof that the payment is delayed.

4.2 Reports. Together with each payment, Licensee shall submit a royalty report which shall be certified by an authorized representative of Licensee and shall state the number of Licensed Products, the Net Sales Price per Licensed Product, and the aggregate Net Sales Prices of all Licensed Products made or Sold. In the event a Licensed Product is sold at varying Net Sales Prices, then the report shall indicate the number of Licensed Products sold at each Net Sales Price. Further, Licensee shall furnish whatever additional information RSA may reasonably request from time to time to enable RSA to verify the calculation of royalties due pursuant to this Agreement.

4.3 Accuracy of Net Sales Price. In all cases, the Net Sales Price employed in the computation of royalties shall be a genuine and objective selling price established in a bona fide arm's length transaction between unrelated and independent parties which have no affiliation or other interest which might affect such genuine and objective selling price. Licensee covenants not to engage in manipulative transfer pricing, distributions of Licensed Products which are not commercially reasonable, or any other means, to avoid the intended application of this Section 4. In the event Licensed Products are used, Sold, or otherwise disposed of by Licensee to any other party at a price which is less than a genuine and objective selling price, then the Net Sales Price employed in the computation of royalties shall be the prevailing Net Sales Price of the identical type of Licensed Product Sold by Licensee to independent and unrelated third parties. In the event that Licensee shall not have customarily Sold the identical type of Licensed Product to independent and unrelated third parties, then the Net Sales Price employed in the computation of royalties shall be set at one hundred twenty-five percent (125%) of the full cost of production, including all direct costs and full overhead established by Licensee's standard practices, for each Licensed Product Sold.

4.4 Records. It is agreed by the parties hereto that all computations relating to determination of the amounts of royalties due and payable pursuant to this Agreement shall be made in accordance with internationally recognized and generally accepted accounting principles. During the term of this Agreement and for a period of three (3) years thereafter, Licensee shall maintain complete and accurate books and records with respect to Sales of Licensed Products or otherwise pertaining to the payment of royalties hereunder. RSA shall be entitled to audit the books and records of Licensee at any time, but no more than once a year, for the sole purpose of confirming the accuracy of payments due hereunder. Any such audit shall be performed during normal business hours and at RSA's expense; provided, however, if such audit reveals an underpayment of five percent (5%) or more of the

amount that should have been paid to RSA for the period audited, then Licensee shall bear the expense of such audit. In the event of any underpayment of royalties, Licensee shall promptly remit to RSA all amounts due.

4.5 Currency. All royalties and other payments to RSA hereunder shall be in United States dollars and shall be net of all taxes. Royalties based on Sales in currencies other than U.S. Dollars shall be converted to dollars according to the official rate of exchange for that currency, as published in the Wall Street Journal (Western Edition), on the last banking day of the calendar quarter in which the royalties accrued.

5. Warranties and Disclaimers.

5.1 RSA. RSA warrants that it is authorized to enter into this Agreement and to grant the rights granted in Section 2 to Licensee.

5.2 Licensee. As of the Effective Date hereof, Licensee warrants that, to the best of its knowledge, none of Licensee's existing products infringe the Licensed Patent.

5.3 Disclaimer. Nothing in this Agreement is or shall be construed as: (i) a warranty or representation by RSA as to the validity or scope of the Licensed Patent; (ii) any warranty or representation by RSA that anything made, used, sold or otherwise disposed of under any license granted in this Agreement is or will be free from infringement of patents, copyrights, and other rights of third parties; (iii) an obligation on the part of RSA to bring or prosecute actions or suits against third parties for infringement; or (iv) granting by implication, estoppel or otherwise any licenses under patents licensed by RSA other than the Licensed Patent defined in this Agreement, regardless of whether such patents are dominant or subordinate to the Licensed Patent. EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, RSA MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED. THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE LICENSED PRODUCTS WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK OR OTHER RIGHTS. Any warranty made by Licensee to its customers, users of the Licensed Product or any third parties are made by Licensee alone and shall not bind RSA or be deemed or treated as having been made by RSA and service of any such warranty shall be the sole responsibility of Licensee.

6. Indemnity.

6.1 General. Licensee agrees to indemnify, hold harmless and defend RSA, its affiliates and the holders of the Licensed Patent, their trustees, officers, directors, employees and agents, against any and all claims for death, illness, personal injury, property damage, improper business practices, and economic loss of any kind whatsoever arising out of the exercise of any of the rights granted in Section 2 by Licensee, its distributors, customers or anyone acting on its behalf, except for liability arising out of

RSA's willful misconduct.

6.2 Conditions. Licensee's liability under Section 6.1 is conditioned upon prompt notice by RSA of all such claims after RSA receives notice of their existence and RSA's offering Licensee an opportunity, to the extent permissible by applicable law, to assume their defense. In the event Licensee assumes the defense of any such claim, RSA (i) shall, at its expense, furnish Licensee with any information in RSA's possession or control that Licensee reasonably may request for such defense, and (ii) reserves the right to continue to participate in the defense of its interests, at its own cost and expense. Licensee shall not be liable for any settlement or compromise unless, prior to any such agreement, RSA notifies Licensee of the proposed settlement or compromise and Licensee approves such agreement, which approval shall not be unreasonably withheld.

7. Marking and References.

7.1 Patent. Licensee agrees to mark the Licensed Products, or in the event their size or configuration makes such marking impractical, their containers or labels, as well as all literature describing the Licensed Products, with the following number of the Licensed Patent:

"U.S. Patent No. 4,405,829"

7.2 Reference to Licensor. In addition, all references to public key technology or the Licensed Patent in any literature promoting or describing the Licensed Products shall bear the following legend: "Licensed Exclusively By RSA Data Security, Inc." Except for advertising and marketing materials, said legend shall be in print no less distinct or smaller in size than the accompanying text.

7.3 No Use of RSA Marks. Except for the specific reference identified in Section 7.2, Licensee agrees not to identify, or use any trademark, service mark, trade name or symbol of RSA, its affiliates or the holders of the Licensed Patent, their employees, agents, officers or directors in any promotional advertising or other promotional materials to be disseminated to the public.

8. Confidential Information.

8.1 Definition and Use. Pursuant to this Agreement, each party may disclose to the other certain proprietary technical or business information or materials ("Confidential Information"). Each party agrees that it will not use any Confidential Information received from the other except for the purposes of this Agreement and agrees not to disclose any such Confidential Information to third parties, and to maintain and follow reasonable procedures

to prevent unauthorized disclosure or use of the Confidential Information received from the other party and to prevent it from falling into the public domain or the possession of unauthorized persons. Without limiting the generality of the foregoing, each party agrees to disclose to its employees only such Confidential Information as is necessary to each employee's responsibilities in performing the acts allowed by this Agreement. Each party shall immediately advise the disclosing party of any disclosure, loss or use of Confidential Information in violation of this Agreement. Each party agrees that its confidentiality obligations hereunder shall survive for a period of five (5) years after the termination of this Agreement.

8.2 Exclusions. Confidential Information shall not include information:

(a) that becomes lawfully known or available to the receiving party from a source other than the disclosing party without breach of any confidentiality obligation under this Agreement;

(b) that was already known to the receiving party, as shown by written records, before its disclosure by the disclosing party;

(c) developed independently by the receiving party without the use or consideration of or reference to the Confidential Information;

(d) that is within, or later falls within, the public domain without breach of this Agreement;

(e) publicly disclosed with the written approval of the disclosing party; or

(f) disclosed pursuant to the requirement or demand of a lawful governmental or judicial authority, but only to the extent required by operation of law, regulation or court order.

9. Limitation of Liability.

9.1 RSA SHALL NOT BE LIABLE TO LICENSEE, ITS CUSTOMERS, THE USERS OF ANY LICENSED PRODUCT, OR ANY THIRD PARTIES FOR INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY DAMAGE OR INJURY TO BUSINESS EARNINGS, PROFITS OR GOODWILL SUFFERED BY ANY PERSON ARISING FROM ANY USE OF THE LICENSED PATENT OR LICENSED PRODUCTS, EVEN IF RSA IS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

9.2 Except for breaches of RSA's warranty in Section 5.1, RSA shall not be liable to Licensee, its customers, users of the Licensed Products or any third parties, under any circumstances

whatsoever, for any amount greater than that paid by Licensee to RSA under the terms of Section 4 of this agreement during the six (6)-month period immediately preceding the assertion of any claim against RSA.

9.3 In the event of any damage to Licensee caused by breach of the warranty in Section 5.1, RSA shall not be liable, under any circumstances whatsoever, for any amount greater than the amount of all payments made by Licensee to RSA under the terms of Section 4 of this Agreement.

10. Notice of Infringement. Licensee shall promptly inform RSA in writing of any suspected infringement of the Licensed Patent by a third party or of any notice Licensee receives of a claim that the exercise of the rights granted in Section 2 infringes any patent, copyright or trade secret of any third party.

11. Term and Termination.

11.1 Term. This Agreement shall commence on the Effective Date and continue in full force until expiration of the Licensed Patent, unless earlier terminated in accordance with the terms of this Agreement.

11.2 Termination for Cause. Either party may terminate this Agreement effective upon written notice to the other party in the event the other party materially breaches this Agreement, including, without limitation, default in the payment of any royalty or the making of any report hereunder, and such breach remains uncured for thirty (30) days following written notice of such breach by the nonbreaching party, unless such breach is incurable in which event termination shall be immediate upon receipt of written notice.

11.3 Termination for Insolvency. RSA may terminate this Agreement by written notice, (i) upon the institution by or against Licensee of insolvency, receivership or bankruptcy proceedings or any other proceedings for the settlement of Licensee's debts, (ii) upon Licensee's making a general assignment for the benefit of creditors, or (iii) upon Licensee's dissolution or ceasing to do business.

11.4 Limitation on Liability. In the event of termination by either party in accordance with any of the provisions of this Agreement, neither party shall be liable to the other, because of such termination, for compensation, reimbursement or damages on account of the loss of prospective profits or anticipated sales or on account of expenditures, inventory, investments, leases or commitments in connection with the business or goodwill of RSA or Licensee.

11.5 Survival of Certain Terms. Surviving any expiration or termination of this Agreement are (i) Licensee's obligation to continue submitting reports and making payment of royalties accrued prior to expiration or termination as described in Sections 3 and 4; (ii) any cause of action or claim of RSA or

Licensee, accrued or to accrue, because of any breach or default by the other party hereunder; and (iii) the provisions of Sections 4.4, 5, 6, 8, 9, 11.4, 11.5, and 12. All other rights and obligations of the parties shall cease upon termination of this Agreement.

12. General Provisions.

12.1 Independent Contractors. The relationship established between the parties by this Agreement is that of independent contractors. Nothing in this Agreement shall be construed to constitute the parties as partners, joint venturers, co-owners or otherwise as participants in a joint or common undertaking for any purpose whatsoever.

12.2 Governing Law; Jurisdiction. The rights and obligations of the parties under this Agreement shall be governed by and construed in accordance with laws of the State of California, without reference to conflicts of laws principles. Any dispute arising out of this Agreement shall exclusively be brought in, and each party irrevocably consents to the personal and exclusive jurisdiction and venue of, the state courts within the county of San Mateo, California (or in the case of exclusive Federal jurisdiction, the United States District Court for the Northern District of California).

12.3 Amendment. The terms and conditions of this Agreement may only be amended by a writing signed by both parties.

12.4 No Waiver. Except as expressly provided herein, the rights and remedies herein provided shall be cumulative and not exclusive of any other rights or remedies provided by law or otherwise. Failure by either party to detect, protest, or remedy any breach of this Agreement shall not constitute a waiver or impairment of any such term or condition, or the right of such party at any time to avail itself of such remedies as it may have for any breach or breaches of such term or condition. A waiver may only occur pursuant to the express written permission of an authorized officer of the party against whom the waiver is asserted.

12.5 Severability. In the event any term, condition or provision of this Agreement is declared or found by a court of competent jurisdiction to be illegal, unenforceable or void, the parties shall endeavor in good faith to agree to amendments that will preserve, as far as possible, the intentions expressed in this Agreement. If the parties fail to agree on such amendments, such invalid term, condition or provision shall be severed from the remaining terms, conditions and provisions, which shall continue to be valid and enforceable to the fullest extent permitted by law.

12.6 Assignment. Neither this Agreement nor any rights hereunder may be assigned or otherwise transferred by Licensee, in whole or in part, whether voluntary or by operation of law, including by way of sale of assets, merger or consolidation, without the prior written consent of RSA, which consent will not be unreasonably

withheld. Subject to the foregoing, this Agreement will be binding upon and inure to the benefit of the parties and their respective successors and assigns.

12.7 Notices. Any notice required or permitted under this Agreement or required by law must be in writing and must be (i) delivered in person, (ii) sent by registered or certified mail, postage prepaid, or (iii) sent by overnight courier such as Federal Express or DHL, and addressed as follows:

To RSA:

RSA Data Security
100 Marine Parkway
Redwood City, CA 94065
Attention: Patent Licensing Office

To Licensee:

Attention:

Either party may amend its address by written notice to the other party in accordance with this Section. Notices will be deemed to have been given at the time of actual delivery in person, three (3) business days after deposit in the mail as set forth herein, or one (1) business day after delivery to an overnight courier service.

12.8 Force Majeure. Neither party will be liable to the other for any default hereunder resulting from delay or failure to perform all or any part of this Agreement if such delay or failure is caused, in whole or in part, by events, occurrences or causes beyond the reasonable control of such party. Such events include, without limitation, acts of God, strikes, lockouts, riots, acts of war, earthquakes, floods and fire, but the inability to meet financial obligations is expressly excluded.

12.9 Export Restriction. Licensee agrees to comply with the Export Administration Act, The Export Control Act, all regulations promulgated under such acts, and all other United States government regulations relating to the export of technical data and equipment and products produced therefrom, which are applicable to Licensee with regard to any distribution of the Licensed Products.

12.10 Attorneys' Fees. Should suit be brought to enforce or interpret any part of this Agreement, the prevailing party shall be entitled to recover, as an element of the costs of suit and not as damages, reasonable attorneys' fees to be fixed by the court (including without limitation, costs, expenses and fees on any appeal).

12.11 Entire Agreement. This Agreement, including all attachments, all of which this Agreement incorporates by reference, sets forth the entire agreement and understanding between the parties and supersedes and cancels all previous negotiations, agreements and commitments, whether oral or in writing, with respect to the subject matter described herein, and neither party shall be bound by any term, clause, provision, or condition save as expressly provided in this Agreement or as duly set forth in writing as a subsequent amendment to this Agreement, signed by duly authorized officers of each party.

12.12 Counterparts. This Agreement may be executed in two or more counterparts, each of which will be deemed an original and all of which together constitute one instrument.

IN WITNESS WHEREOF, the parties have caused their duly authorized representatives to enter into this Agreement, effective as of the Effective Date.

RSA Data Security, Inc.

("Licensee")

By: _____

By: _____

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Exhibit A

LICENSED PRODUCTS

Copyright © 1996 RSA Data Security, Inc. All rights reserved.

RSA Patent 1.3

1/15/96

Last Updated on the web: February 9, 1996

Exhibit GG

September 18, 1996

VIA EMAIL AND U.S. MAIL

Mr. Roger Schlafly
P. O. Box 1680
Sequel, CA 95073

Re: Your email letter to Mr. Bidzos dated June 6, 1996

Dear Mr. Schlafly:

Mr. Bidzis has asked me to respond to your letter, since matters of an RSA patent license is handled by my department.

First I must say that your position as an objective business inquiry about RSA's patent licensing policy is seriously compromised by the fact that you are conducting litigation against RSA for the purpose of invalidating the very patent you seek to license. Your letter of June 6, 1996, was widely circulated, making its true purpose even more suspect. Accordingly, I obviously have my doubts as to whether you are truly interested in obtaining a license. Nevertheless, you have cited certain clauses in the agreement which seem to be objectionable to you and I will address them in order as appropriate:

- (1) You ask if we will "guarantee terms as good as [our] best customer." In short, should another customer offer RSA a business opportunity equal to that of another of our customers, we would be more than willing to offer the same terms. For now, however, you have not presented any business opportunity or other basis reasonably justifying a deviation from the standard agreement. This is the same approach we take with each customer who inquires about variations from the standard patent license terms.
- (2) You have asked if we will waive our minimum royalty for you to create a product you wish to distribute at no charge. Thus, your second question proposes simply that RSA license you for free. The answer to this request is no, we are not willing to waive the minimum royalty. How a customer prices its product is its own business decision. Your desire to give away your product does not obligate RSA to give (license) away its patent. Netscape, which you cite as an example, is a licensee of our software, not the raw patent, and RSA is compensated for the use of its technology.
- (3) Your third question asks under what terms we would grant you a license to create a toolkit. RSA's basic business is creating toolkit products; that is how we make our living. We ensure that a multitude of end user applications using the patented technology are available by our licensing both toolkits and the patent. We will continue to negotiate licenses that enable others to create end user products in this manner, but we will not license you to make a toolkit product.
- (4) Finally, it is reasonable and customary in the industry to provide exclusions of trademark usage when licensing a patent. We would certainly object to any situation in which the use of "RSA" might give a customer the impression that the product was made by RSA Data Security, when it is not or where it is not at least built upon our implementations of the patent. You should appreciate this point, as it was the basis of the consent judgment entered against you resulting from your flagrant unlicensed use of the '829 patent and our trademark.

As you should know, the ANSI/X9 policy with respect to the use of patented technology in standards has as its purpose the need to insure that financial institutions have access to the patented technology so that they may comply with the standard. RSA's business is to make its technology available to satisfy application security needs such as those experienced by the financial industry.

We offer our technology in two forms with an appropriate license for each: the patent license and software toolkit products. A financial institution may use RSA technology to write its own application via either type of license, or obtain the necessary application from a third party in the business of creating such implementations. RSA's licensing of the patent and its toolkits to enterprises which create application products has and will continue to result in a large number of alternatives to those financial institutions. It is worthy of note that products of all descriptions are already being produced by companies of all sizes and by RSA's over 200 licensees. Millions of copies of their products containing RSA technology are already in circulation, some using our software, others not, many in use within the financial community. A reasonable person could conclude from this fact that there is both broad acceptance and availability of RSA's licensing terms.

Please contact me at your convenience here at RSA if you are serious about a patent license.

Sincerely,

Paul O. Livesay
Director of Legal Affairs

POL/lg

cc: Ms. Cynthia Fuller, ABA, X9 Secretariat
Ms. Amy Marasco, ANSI General Counsel
Mr. Blake Greenlee, Chairman X9F1

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